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ABSTRACT

The Work-Oriented Literacy Pilot Project in Iran is based on the hypothesis that illiteracy on the part of workers hinders the growth of productivity and must therefore be considered as a factor retarding development. The study visit and seminar was intended to enable the participants to gain insight into the potentialities revealed by work oriented functional literacy as a factor of national development. Senior officers from 12 Asian countries participated. The first section of this final report discusses the component variables of the Project: objectives, organization, financing, structure, motivation, teaching methods, advisory and coordinating committees, audiovisual media, followup, evaluation, problems, and prospects. The second section summarizes the discussions which preceded or followed each study visit and the most significant comments from individual reports written by participants after returning to their countries. The appendix discusses briefly the general characteristics of literacy and development. (PT)

Study visit and seminar: work-oriented adult literacy pilot project in Iran

final report

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STUDY VISIT AND SEMINAR :

WORK-ORIENTED ADULT LITERACY PILOT PROJECT

IN IRAN

27 October - 9 November 1969

FINAL REPORT

UNESCO REGIONAL OFFICE FOR EDUCATION IN ASIA
BANGKOK
1970

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The contents of this publication represent the views of the participants of the Study Visit and Seminar : Work-oriented Adult Literacy Pilot Project in Iran; they do not necessarily reflect the official position of Unesco. No expression of opinion is intended herein concerning the legal status or the delimitation of the frontiers of any country or territory.

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STUDY VISIT AND SEMINAR : WORK-ORIENTED ADULT LITERACY PILOT PROJECT IN IRAN

FINAL REPORT

Introduction

In accordance with Resolution 1.331 adopted by the General Conference of Unesco at its 15th Session, the Unesco Regional Office for Education in Asia organized, with the co-operation of the Government of Iran, a Study Visit to the Iran Work-oriented Adult Literacy Pilot Project. The Study Visit was held principally for the National Directors of adult education departments of various Member States in Asia, and it included a seminar at Isfahan and Dezful.

The Study Visit and Seminar were intended to enable the participants to gain insights to the potentialities revealed by work-oriented functional literacy as a factor of national development.

More specifically, the overall objectives of the Study Visit and the seminar were :

a) To provide the directors or officers in charge of adult education departments an opportunity for first-hand observation of the various aspects of a work-oriented functional literacy project : planning, implementation, evaluation, approaches, methods and techniques, production of reading materials and teaching aids.

b) To permit the participants to take account,on the terrain,of the conditions involved in accomplishing the experiment beginning with the exchange of views and information with the team of national and international experts assigned to the project; and, during the seminar,to undertake a systematic study of the problems which arise in the planning, implementation and evaluation of a project of this type.

Senior officials from twelve Asian countries (Afghanistan, Burma, Cambodia, India, Indonesia, Laos, Malaysia, Nepal, Pakistan, Philippines, Thailand and the Republic of Viet-Nam) were designated by the Director-General of Unesco to participate in the Visit and Seminar in their personal

capacities.[1] An official of the Unesco Regional Office for Education in Asia (Bangkok), experts of certain United Nations specialized agencies (ILO and WHO), the Director of the International Institute for Adult Literacy Methods, national and international experts attached to the pilot project and various Iranian officials also took part in the Visit and Seminar (List of Participants, Annex II).

The Ministry of Education of Iran gave generous help in arranging for the physical organization of the Study Visit and Seminar and the reception of the participants. The Office of the UNDP Resident Representative kindly took care of certain administrative matters, which greatly facilitated the execution of the programme.

* * *

The opening ceremony took place on 28 October 1969 at Isfahan in the Youth Centre of the Red Lion and Sun, which was decorated with the national flags of the participating countries. H.E. Mme. Farrokhou Parsay, the Minister for Education, who presided over the ceremony, read a message of welcome from H.I.H. Princess Ashraf Pahlavi, Vice-Chairman of the National Committee for the Eradication of Illiteracy. In her message, Princess Ashraf expressed pleasure that the Seminar, the first of the kind organized under the Experimental World Literacy Programme, was taking as a focal point for consideration and observation the Iranian Project being carried out at Isfahan for workers in the iron and steel and textile industries, farmers and craftsmen, and in the Dezful region, where it is linked with the development of an irrigated area. Thus the participants should have an opportunity to visit two of the most representative and interesting regions of Iran, whose development was based on the guidelines and options included in the fourth National Plan for 1968-1972.

The functional literacy pilot project, the message continued, has a two-fold aim. First, it should enable new teaching methods, techniques and resources to be developed experimentally in order to increase the effectiveness of activities to improve the vocational training of industrial and agricultural workers. It should also provide the National Committee for the Eradication of Illiteracy with a laboratory to work out teaching methods and prototypes which can be gradually used by the national campaign to step up its work.

H.E. Dr. Sam, Governor-General of the province of Isfahan, welcomed the participants to the province, and drew attention to the apt initiative taken by H.I.M. the Shahinshah of Iran in proposing that Unesco convene a World Congress of Ministers of Education on the Eradication of Illiteracy at Teheran, which was to mark a decisive turning point in the already lengthy history of the struggle against ignorance.

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1. The official from India was unable to take part for health reasons.

H.E. Dr. A. Birjandi, Deputy Minister for Education and National Director of the Work-oriented Adult Literacy Pilot Project in Iran, strongly emphasized that it was imperative, in carrying out a functional literacy programme, to take account of the local conditions and characteristics of the country. Hence it was not possible simply to transfer the experience gained in one country to another country. Because it was intimately linked with the country or region which formed its setting, each experiment had certain features peculiar to itself which were not necessarily transferable. Each one, however, whether in the application of a particular method, the preparation of reading material or the use of audio-visual aids, could serve as the focus for extremely profitable study and exchanges of views for experienced observers from abroad. In conclusion, he said that the Study Visit and Seminar should give the senior officials and adult education experts from various Asian countries a unique opportunity to observe and analyse together the problems involved in carrying out a functional literacy project.

Mr. Nessim Shallon, resident representative of the United Nations Development Programme in Iran, referring to the positive results already achieved by the pilot project in that country, stressed that the functional approach, centred on vocational training, was by nature multidisciplinary and consequently called for close collaboration between the various international organizations in the United Nations system. In a project such as the present one, the International Labour Organization (ILO), the World Health Organization (WHO) and the Food and Agriculture Organization of the United Nations (FAO) had an important part to play, especially in the technical aspects of programmes. Similarly, at the national level, multidisciplinary work of that kind required the co-operation of various ministries and regional and local authorities, and presupposed the involvement and active support of the private sector, particularly industry.

Mr. Marcel de Clerck, Adviser on adult education of the Unesco Regional Office for Education in Asia, expressed the hope that at the end of the Study Visit and Seminar the participants would be able to draw concrete conclusions from their direct contact with the realities of functional literacy. If they considered that the results of the experiment were positive, they could on their return to their countries persuade their Governments of the scope and value of the functional approach. He expressed the hope that Asian countries which had not yet drawn up functional literacy programmes would take steps to do so during 1970, International Education Year. The United Nations General Assembly had decided that one of the main action themes for the International Year would be functional literacy.

At the Seminar's first meeting, H.E. Dr. A. Birjandi, Deputy Minister for Education and National Director of the Adult Literacy Pilot Project in Iran, was elected Chairman, Mr. F. Muntazer (Afghanistan) and Mr. A.H.M. Karim (Pakistan) were elected Vice-Chairmen, and Mr. Artemio Visconde (Philippines) was elected Rapporteur.

Study visit and seminar: work-oriented literacy project

The programme provided for a general introduction by the National Director and the Chief Unesco Technical Adviser, briefings by national and international experts assigned to the pilot project on different technical aspects of activities, and study visits followed by discussions as part of the Seminar (Programme, Annex I).

The participants from the eleven Asian countries wrote down their general conclusions, which were presented and discussed at the final meeting of the Seminar on 8 November 1969 at Dezful. In addition, each participant was invited to prepare a report after returning to his country summarizing his personal impressions of functional literacy, the part it could play in industrial and agricultural development projects and the real possibilities of similar action, conceived as a component of development projects, in his own country. At the time of drafting this report, the Unesco Regional Office at Bangkok had received reports from the participants from Indonesia, Laos, Nepal, the Philippines and the Republic of Viet-Nam.

The Report has been arranged as follows : (a) description of the Pilot Project, with a brief account of the field visits; (b) summary of the main points raised during the Seminar and of the comments by the participants in their conclusions and final reports; (c) recommendations to Unesco and Asian Member States by the participants.

The Work-Oriented Adult Literacy Pilot Project in Iran

1. Introduction

The Work-oriented Adult Literacy Pilot Project in Iran is one of the first projects to be carried out under the Experimental World Literacy Programme with the financial assistance of the United Nations Development Programme (Special Fund) and with the technical collaboration of Unesco. This Experimental Programme was approved by the General Conference of Unesco in 1966 and was based upon the recommendations adopted by the World Congress of Ministers of Education on the Eradication of Illiteracy, held in Teheran in 1965 on the invitation of H.I.M. the Shahinshah.

At the present time, of the 52 countries which asked to join in this Experimental Programme, projects are now under way in 11 with UNDP assistance: since last year, Ethiopia, Guinea and Madagascar have been added to Algeria, Ecuador, India, Iran, Mali, Sudan, Syria and Tanzania. Others, although not taking part in the Experimental Programme, are nevertheless guided by its objectives and ideas and have linked their literacy activities to the priorities of economic and social development. Examples in Asia are Afghanistan, Laos and Thailand.

The basic hypothesis behind the Experimental Programme is that illiteracy on the part of the workers hinders the growth of productivity and must therefore be considered as a factor retarding development. This hypothesis is at the root of the concept of functional (or work-oriented) literacy teaching. If literacy teaching is thought of as merely instruction in reading and writing, it may meet an ethical or political requirement, but functional literacy teaching reflects a desire for economic development and social progress, and is essentially an attempt to bring about the technical advancement and the social integration of the workers. Literacy teaching in the first sense means the acquisition of knowledge, whereas the aim of functional literacy teaching is the transmission of practical ability. It is for this reason that vocational training in industrial areas and agricultural training in rural areas are the keystones of all functional literacy programmes. In these perspectives, literacy teaching may provide a tool either for abstract thinking or for the mental mastery of technical information that has been taught or imparted to workers in the course of their training.

2. Notes on the economic aspects of development in Iran

Iran has a population of about 25 million, or an average density of 15 people to each square kilometre, but 360 to each square kilometre of cultivated land. The population growth rate is high (about 2.6% a year), and the population is very young, with 55 % under the age of 20. The active population represents only 28% of the total population.

For several years, Iran's economic growth has been remarkably rapid : the average annual growth rate of the gross national product (GNP) attained 6.6% from 1959 to 1965 ; since 1966, it has reached 8% according to estimates by World Bank experts, and 12% according to the most optimistic estimates. Per capita income represents the equivalent of US $245, which places Iran among the leaders in the developing countries. Industrialization is one of the essential factors in development : the share of industry in GNP rose from 8.7% to 14.2% between 1959 and 1966. At the same time, the share of agriculture fell from 34% to 24.5%.

Petroleum remains the essential driving force in Iran's growth, however; petroleum royalties represent 11 % of GNP, and state revenues are the main source of investment funds. The Government is trying to promote a policy of diversification of production in order to avoid dependence on the group of goods which now make up the bulk of exports (excluding petroleum) : cotton, 27.8% ; woollen carpets, 25.1% ; and dried fruit, 13.7%. While attempting to step up industrialization, the authorities are striving to modernize agriculture and to reduce or eliminate agricultural imports (sugar, oil, rice, tea). Agriculture, which produces only a quarter of GNP, employs half the available labour force and its growth rate (2.4%) remains below the population growth rate : the food deficit may therefore increase if energetic measures are not taken to boost production, of which 75% comes from irrigated land representing about half the 19 million arable hectares (4% of the total area of Iran).

To reach the targets laid down, the fourth Plan (1968-1972) places emphasis on increased productivity. Since the farmers' ignorance of modern production and marketing methods and the lack of skills among industrial workers are the most serious bottle-necks in the Iranian economy, the policy of upgrading human resources, of which the functional literacy Pilot Project forms part, is of decisive importance.

3. Objectives and spheres of operation of the Iranian Pilot Project

The Project is organized in a selective way from the viewpoint of both geographical location and economic structures. Operations are centred, on the one hand, in the regions of Isfahan and Dezful (Khuzestan province) and, on the other hand, in a number of socio-economic sectors representative of the main lines of the country's development. At the Seminar, these spheres of operation were described in briefings by the Pilot Project's national and international specialists, followed by field visits.

Isfahan sub-project

a) Establishment of a complex of steel works

Literacy is closely bound up with the vocational training of the workers who are to build the first national steel works (most of whom come from rural

areas) and their initiation into industrial life. A large part of the labour-force for the steelworks, which will be in operation in 1970, and for the subsidiary industries which are to be established will be drawn from these workers. A new town, situated between Reeze and Isfahan, is being built, and will have accommodation for 200,000 inhabitants.

At the steelworks site at Reeze, the participants had the opportunity to visit functional literacy classes designed for workers in charge of the maintenance of heavy machinery. The classes are held during work hours, three days per week, two hours per day, and are taught by technicians from the steelworks. The time spent by the workers and instructors on functional literacy is paid at the same rate as normal work hours. In the town of Reeze itself, the participants were able to see workshop-classes for vocational pre-training attended by adults and adolescents. Against the workshop background, the literacy programme is linked to an elementary technical initiation in wood and metal working. Functional literacy combined with vocational pre-training should equip these young adults either to be taken on by the steelworks or to follow a new trade. Undoubtedly these workshop-classes are destined to play an important part from the vocational point of view by helping to adapt a still very rural population to the chain transformations and secondary effects which the establishment of the iron and steel complex will inevitably entail. The rapidly increasing urbanization of the region will result in a strong demand in such different branches as mechanics, electricity, carpentry and plumbing.

b) Modernization of traditional industries

The objective to be attained here is to link literacy teaching for the 30,000 or so workers in the textile industry with the government-backed attempt to modernize and bring up to date a branch of industry that has suffered from fluctuations in the world market and has passed through a serious crisis in the course of the last few years. The growth of productivity and an improvement in the quality of work are important factors in their desire for expansion and modernization.

The participants visited two textile mills where experimental functional literacy classes were being held. The first, the Behfar mill, employs a hundred workers. The literacy course is given in two stages, each lasting six months, with five hours of classes each week. The mill's activities provide a technical background for the literacy process; the literacy instructor has a diploma from the Isfahan School of Textiles. The second, the Taj textile mill, which has very modern plant and employs over a thousand workers, is the setting for an original experiment based on two problems directly affecting production: the identification of colours for dyeing cloth and ignorance of safety measures. From the start, the emphasis was put on the acquisition of techniques and ability, progress on the teaching side being deliberately subordinated to progress in the job apprenticeship. The Taj mill experiment ran into many difficulties, including the initial scepticism of the management and particularly the fact that class times varied from one shift to another (the mill runs 24 hours

daily). Despite these obstacles, the experiment proved conclusive; now having become literate, the former students of the experimental classes no longer make mistakes in selecting colours, no longer fall victim to accidents and appear more diligent and regular in their work.

c) Modernization of agriculture in the Pir Bakran region

The literacy work being carried out in 81 villages with approximately 40,000 inhabitants will be combined with a programme of agricultural information and demonstration which should help to bring about an improvement in land-cultivation techniques, the diversification of production and better control of water distribution, taking into account the possibilities afforded by the increased quantity of water available and particularly in that, from 1970, the irrigated area will be twice as large as hitherto, owing to the construction of the Shah Abbas dam.

The participants passed through various villages in the Pir Bakran region and visited classes where farmers, in their second year as students, read supplementary reading texts while discussing such topics as the respective merits of the local and new varieties of wheat, their yield, and their resistance to disease. In the village of Pava, they saw a demonstration garden where adults in their second year of classes were being introduced to new and more profitable market-garden corps (particularly green beans and strawberries). A visit to a consumers' co-operative in the village of Darjan also aroused keen interest. This co-operative, set up by the adults from the literacy classes and managed by one of them, enables them to become familiar with commercial operations and dealings.

d) Education of women

In the rural sector as well as in the urban sector of Isfahan, the Pilot Project authorities have set up functional literacy programmes for women, bearing in mind the part they will play in any policy for social progress (e.g., hygiene, health and disease prevention, domestic economy, the rearing of children, dietetics, family planning).

The participants had the opportunity to visit several women's classes where lessons in reading, writing and arithmetic alternated with practical activities such as knitting, cutting out material, ironing, embroidery or the preparation of carefully cooked dishes, or with lessons (illustrated with visual aids) on themes of immediate practical interest for women. The instructors are chosen from women school-teachers with some technical knowledge, after a three-month training course.

Women who have learnt embroidery and knitting are grouped together in a producer co-operative which is run under the supervision of those in charge of the women's side of the Pilot Project. The aim of this co-operative is to improve the earnings of members and the family level of living, but it has met with only relative success; a considerable number of women prefer to sell their work output directly to merchants or private customers.

Dezful sub-project

e) The transition from traditional agriculture to modern mechanized agriculture in an irrigated area

Work-oriented literacy here is linked up with the development of an irrigated pilot area of 22,000 hectares (13,500 inhabitants [2] in 58 villages), in which tests, demonstrations and experiments are conducted with a view to the agricultural development of the Greater Dez region (100,000 people, 144,000 hectares). A specialized body known as the Khuzestan Water and Power Authority is responsible for co-ordinating and promoting this development scheme, the success of which will depend upon the transformation of a traditional type of agriculture, based upon cereal crops and extensive stock raising, into an intensive, mechanized high-yield agriculture, which would enable a variety of activities to be undertaken (vegetable, fruit and sugar-beet growing, intensive stock raising etc.), the commercial value of which should, according to the IBRD experts, rise from 4.4 to 18.7 million dollars, with an accompanying rise in annual family income from 75 to 350 dollars.

Beginning with the present, functional literacy programmes will also be linked with the technical and vocational training of a limited number of workers (mechanics, drivers of tractors and farm machines, etc.) as required for the agricultural mechanization of those agro-industrial concerns to which the development rights of part of the area are to be granted, or to meet the needs of forthcoming industries for the processing of agricultural produce.

The Pilot Project now involves 43 villages, 10 of which are undergoing intensive functional literacy activity. These 10 villages were chosen because their school had sufficient land for use as a demonstration plot for the improvement of crops which were already traditional (potatoes, tomatoes and cucumbers) or the introduction of new ones (particularly strawberries, artichokes and flowers). The Pilot Project also aims at promoting dairy produce, aviculture and poultry raising as additional sources of income.

All of these agricultural activities form an integral part of the functional literacy process. In addition to the leaflets containing reading and writing exercises, adult students are also given booklets dealing with one of the subjects in the programme, a weekly message which is read out to the beginners and a weekly bulletin, simply written and readily comprehensible, which informs adult students who can already read of farm work which should be done without delay. Agricultural training and the literacy process are integrated not only through the demonstration plots, but also in the fields and farms of the farmers attending the courses. The Dezful sub-project also includes programmes for women, one urban and the other rural, each reflecting the special conditions of the environment. In the villages, women have been introduced to strawberry growing with excellent results.

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2. Figures for 1966

The participants paid lengthy visits to several villages in the irrigated area. They watched the practical activities prior to group discussions and the various reading, writing and arithmetic exercises related to the practical activities. They were impressed by the eminently educational character of the process adopted by the Pilot Project authorities.

4. Organization, financing and structure

The Pilot Project, the duration of which is expected to be four years (1967/1971), is administratively and financially autonomous; it is financed, in more or less equal parts, by UNDP ($1,358,000) and the Iranian Government ($1,532,000). The Iranian contribution is paid in yearly instalments, at the beginning of each financial year, by the body responsible for the Plan; a programme has therefore to be presented each year for the approval of the departments concerned with the Plan.

Although it is autonomous, the Project comes under the authority of the Ministry of Education, and the National Director of the Project is also the Vice-Minister of Education. It is the particular function of the Ministry of Education to maintain constant liaison with the National Committee for the Struggle Against Illiteracy and to enlist the assistance of other ministries and bodies concerned in the execution of the Project.

One of the advantages of this connexion with the Ministry of Education is that most of the national qualified staff engaged for the Project and the instructors responsible for the literacy courses are chosen from amongst workers in the Ministry of Education and continue to be paid by the Ministry; the Project is responsible only for any additional salary that may be paid. This, as is evident, appreciably increases the amount allocated to the Project by the Iranian Government.

As in all projects of this kind, Unesco's aid comprises the sending of a team of specialists and consultants under the direction of a Chief Technical Adviser (481 specialist months), the supplying of equipment ($136,000) and the granting of study fellowships for the further training of national qualified staff who will carry on the experiment alone after the withdrawal of international aid.

An advisory and co-ordinating committee maintains the necessary co-operation between the different Ministries (Education, Labour, Economy, Planning, Information, Agrarian Reform, Water and Power, Agriculture) and in particular examines ways of combining the execution of the Project with the National Development Plan. It is supposed to meet at least once every three months, but it must be admitted that in practice it has been impossible to organize meetings quite so frequently. Thus there is a trend towards more informal, person-to-person consultations instead of consultations between bodies or institutions. On the other hand, advisory and co-ordinating committees have been established at a regional level for each of the Sub-Projects.

The internal organization of the Project takes into account the geographical distribution of activities and the centralization of decisions in Teheran. A small central mobile team, stationed in Teheran, is responsible for the planning of operations, liaison with the central administrations and with Unesco and the co-ordination of the activities of the two Sub-Projects.

The majority of Iranian specialists and international experts appointed to the Project (about sixty in all) are based in Dezful and Isfahan, and are distributed amongst the following units:

Adult education (educational and methodological problems)
Vocational training for industry or agriculture
Education of women
Audio-visual media
Production of reading texts and teaching material
Evaluation
Administration and accountancy

Two permanent centres providing pre-service and in-service training for instructors have been established at Dezful and Isfahan.

5. Methods

Since its initiation, the Project has been functioning essentially as a teaching laboratory. Various kinds of teaching material have been produced and tested (more than seventy reading-books, radio broadcasts, illustrations, sketches, drawings, films or film strips and teaching guides for instructors. This material is adapted to different socio-vocational situations, and provides an integrated course of lessons in reading, writing and arithmetic, together with other aspects of workers' education - civic and socio-economic instruction, technical and scientific acculturation, and pre-service or in-service vocational training. More importance has hitherto been attached to the demands of educational experimentation than to the needs of expansion; this is why fewer than 10,000 adults have become literate in two years as a result of two sub-projects. Two methods of reading are being tried out at the same time: one is the eclectic method, which has the advantage of having been perfected by the National Committee for the Struggle Against Illiteracy; the other is the analytical or global method, which appears to take greater account of the inclinations, needs, abilities and aspirations of the adult.

The teaching method used is designed to be practical and active in nature and to take into consideration the psychological and socio-professional characteristics of the adult. Whereas traditional literacy teaching is based on academic and authoritarian teaching methods, in functional literacy teaching a number of teaching procedures such as group discussion, demonstration in field or workshop, practical work, as well as theoretical courses are used in connexion with centres of interest or training patterns.

Teachers or instructors are recruited mainly from amongst primary school teachers. An attempt is being made, however, to enlist the services of people such as agricultural information officers, foremen, literate workers or peasants, to act as literacy teachers. One point that will be investigated is whether it is easier and more efficient to train technicians to be able to teach or to provide technological training for teachers.

Many of the teachers in Dezful are married couples; they are responsible both for primary teaching (morning) and for work-oriented literacy teaching for adults (evening), the husband being responsible for the boys and the men and the wife being in charge of the girls and women. Up to the present time the experiment appears to be running satisfactorily; the teaching couples are in constant contact with the villagers, sharing their lives and acting as leaders in agricultural activities, practice of hygiene, child care, learning about nutrition and other community matters.

All instructors are given a special training course which lasts about six weeks. Regular meetings are held, at which the progress achieved is assessed, difficulties are analysed and general directives are issued; one-day refresher courses are also organized periodically. The standard of teaching is periodically checked by supervisors.

6. Use of audio-visual media

The use of audio-visual media in functional literacy is, according to the organisers, one of the weak points of the Pilot Project. These media, which enable the word (itself the symbol of an existential situation) to be directly and closely related to the image can make literacy and training programmes much more effective. Furthermore, they are indispensable during the period when the experiment is being expanded and put into general practice, since they enable the cost per trainee to be reduced.

A working programme has been approved with a view to correcting weaknesses in the work carried out up to the present time. This programme provides for audio-visual media to be used in three different ways:

a) For motivation

The aim here is to increase adult participation, make the difference between traditional and functional literacy teaching understood and, broadly speaking, acquaint the general public with the objectives and aims of the Project. The media used are posters, radio and television.

b) As an accompaniment

Here audio-visual media are used in conjunction with literacy and training programmes. For experimental purposes, different media will be employed simultaneously in the following sectors:

Cinema (and eventually television)	:	steel mills
Transparencies	:	agriculture
Slides	:	local crafts
Film loops	:	textiles
16 mm. films	:	women
Radio	:	Dezful

c) As a follow-up

The purpose of audio-visual media here is to increase the effectiveness of post-literacy programmes. Radio, local newspapers and illustrated pamphlets are the main instruments used.

The participants were particularly interested by the radio programmes produced for the literacy classes which the audio-visual section has produced with the collaboration of the Isfahan radio station, the total of 66 broadcasts representing nearly 22 hours of listening for women (23 broadcasts), the steel-workers of Reeze (23 broadcasts) and farmers in the region of Pir Bakran (23 broadcasts). The broadcasts for women's classes, for example, are comprised of dictation on themes of practical utility - health, child-raising, cleanliness, and accident-prevention. Introduction of a new word or one which is difficult to spell is signaled by the ringing of a bell in order to draw students' attention to it.

7. Evaluation

Comparative evaluation is an intrinsic part of experimentation. Unesco, in agreement with UNDP and in consultation with the other UN specialized agencies (ILO, FAO and WHO), has worked out a detailed comparative evaluation procedure, using common norms.[3] In 1967, the Director-General appointed a Permanent Panel of 9 members for Evaluation of Experimental Literacy Projects for a period of five years to give advice on all problems in the evaluation of the projects. The Panel meets at least once a year in Paris, or a suitable centre, together with project Evaluation Specialists, and may be called upon to undertake consultant missions to Member States in order to advise the evaluation teams and improve the comparability of research and evaluation in the projects. Liaison with the Panel is carried out by the Literacy Division of Unesco. At the national level, each project includes an evaluation unit made up of a least one international expert and one national specialist. Missions of consultants or missions for inter-institutional evaluation are also arranged at regular intervals.

Evaluation surveys for each project are carried out at four levels :

a) at the national level, with a view to bringing together general data, mainly of a demographic and economic nature;

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3. The norms are defined in a provisional *Guide for the evaluation of experimental literacy projects*, prepared by Unesco with the aid of an international committee of experts (document UNESCO/LIT/EV/3).

b) at the level of each of the Sub-Projects, with a view to obtaining more detailed information on the socio-economic characteristics and development prospects of a particular region or sector;

c) at the level of the groups concerned: factory, village or group of villages, district of a town, socio-vocational group in order to identify the problems encountered by these groups (the training programmes are expected to seek solutions to the problems identified);

d) at the level of the individuals who will be given literacy teaching, the aim being to find out what motivates adults towards literacy and to discover what psychological aptitudes or obstacles are favourable or detrimental to the success of training programmes linked with development.

All of these surveys are based upon instructions contained in a document produced by Unesco under the title "Baseline survey for evaluation of experimental literacy projects" (ED/WS/23), which includes a general plan for the classification and utilization of the data to be assembled.

Once these different surveys have been made, it becomes necessary to find and define indicators for measuring the changes that take place at different levels, as a direct or indirect consequence of the literacy teaching and training programme. It has been suggested by the Unesco Secretariat that changes in the following areas may be measured by indicators: vocational competence and ability to adopt new methods and techniques; standard of literacy; educational and cultural activities; use of information media; participation in social life; hygiene and health; productivity; standard of living.

8. Problems and prospects

The problems encountered in the execution of the Pilot Project were dealt-with in papers read and discussions held in connexion with the study tour. The main problems are:

a) difficulty in planning in order to take proper account of the objectives of the Four-Year Plan;

b) difficulty in establishing efficient administrative machinery;

c) the need to review the hypotheses adopted at the time of the preparatory mission responsible for working out the Project, taking into account the mistakes it made, the unreliability of the data collected and the way in which the situation has evolved;

d) difficulties inherent in inter-ministerial co-operation;

e) initial hesitation and reticence on the part of the socio-economic bodies concerned: KWPA, steel-works, textile industries, etc;

f) initial opposition on the part of certain directors of the National Campaign, and difficulty in reaching an agreement as to the delimitation of the operational areas of the Pilot Project;

g) failure to realize the complexity of evaluation and the volume of resources needed to make a satisfactory evaluation;

h) lack of co-operation by universities and research institutes;

i) misunderstandings and ambiguities concerning the very concept of functional literacy.

It should be noted that in the final analysis most of these difficulties, for which the international team as well as the Iranian specialists are responsible, stem from the resistance - mainly psychological in origin - to the adoption of new techniques or ideas which is encountered under any social system. To overcome this reluctance is one of the major objectives of the Pilot Project.

The Project appears to be likely to develop in two directions :

The first depends on the possibility of enriching and diversifying the methods employed and the teaching material used by the National Campaign, the Pilot Project acting as an experimental laboratory for the Campaign.

The second depends on the result of literacy experiments linked with vocational training in different fields of activity. For instance, if the experiment being carried out at Dezful proves convincing, functional literacy teaching may be regarded as a means of conveying the necessary technical knowledge to agricultural workers, and become an integral part of information work amongst farmers, which the Rural Extension Department of the Ministry of Agriculture could in the future undertake amongst tens of thousands of agricultural workers. Similarly, if literacy teaching for workers, in conjunction with vocational training for workers in the textile industry, raises the level of productivity and solves certain work organization problems, the Ministry of Economy or the Ministry of Labour would perhaps regard the teaching of functional literacy as a first step in the implementation of a national policy for industrial training and the technical development of the labour force.

Two major strategies for literacy teaching can thus be distinguished. The one, which is more quantitative, aims toward making traditional literacy teaching functional, and therefore more effective; its object is to associate literacy teaching with more or less generalized action to provide civic training, widen cultural horizons and encourage receptivity toward modern ideas. The other, which is more qualitative and more selective, is the first stage in a policy specifically for technical progress and the maximum development of manpower resources, a policy that takes account of the need for life-long education and that is integrated with the basic direction of development that is desired.

Discussions and comments

Introduction

1. This part of the final report summarizes, on the one hand, the discussions as part of the Seminar which preceded or followed each study visit and, on the other hand, the most significant comments collected from the individual reports written by the participants after returning to their own countries.

2. It should be remembered that the aim of the Study Visit and Seminar was not the examination of the functional Literacy Pilot Project as an Iranian project, but the direct observation of the most characteristic elements of the functional approach with a view to their possible application in the participants' own countries. Many discussions and comments recorded herein, therefore, relate not to ways and means of carrying out the Iranian Project, but to the problems which the introduction of functional literacy activities might raise in other countries, bearing in mind the individual conditions of each.

3. The participants were anxious to stress that the total and permanent eradication of illiteracy was their country's ultimate objective, just as it is Unesco's. But the work to be tackled is vast and complex, and it has to be admitted that the complete eradication of this scourge, at least for those countries which still have a high illiteracy rate, lies in the distant future.

4. During the various discussions at different points in the Seminar, the participants found themselves comparing traditional and functional literacy teaching. They felt that there were fundamental differences between the two approaches which derived from the objectives aimed at. Those objectives reflected essentially differing concerns: ethical, political and cultural in the case of traditional literacy teaching, economic and social in the case of functional literacy. The traditional approach offers an often indeterminate minimum of teaching; the functional approach aims at a clearly defined level of knowledge and training in accordance with the very precise requirements of a development programme. Traditional literacy teaching is seen as a service, a consumption expenditure, and is treated accordingly in national plan and budgets; the functional approach is intended to be an investment, in the same way as the building of a dam or establishment of a network of co-operatives. Incidentally, in several Asian countries, the lack of recognition of the need to prepare the individuals who will become active agents in development on both the intellectual and professional planes - in other words, because investment in human potential has been neglected - has meant that more than one ambitious development programme has ended in failure fraught with consequences for the country's future.

5. Just as the traditional and functional approaches have different objectives; they have different methods of operation as well. Every educator knows that there is a close correlation, a logical relationship between the objectives of educational activity and the programmes, their content, the teaching methods and procedures. Clearly there is no hope of achieving the objectives of the functional approach by borrowing from the ways and means of the traditional approach. What is involved in the question of teaching literacy is two forms of education, each with its own peculiarities and requirements.

6. The choice of approach depends on the objectives a governments sets for itself. The participants recognized that traditional and functional literacy are not mutually exclusive. As in the case of Iran, a country can perfectly well embark on an extensive mass literacy campaign at the same time as organizing selective and intensive literacy activities within the limited framework of agricultural or industrial development projects.

7. In their individual reports, several participants mentioned the names of current development projects in their countries which might benefit from functional literacy work. Examples of these are; for Indonesia, the development projects for Sumatra's plantations, controlled irrigation in West Java, erosion control in East Java, afforestation in Kalimantan, fisheries in Sulawesi and Maloukou; in Nepal, the agricultural modernization project planned for 30 districts; in the Philippines, land reform, particularly in Nueva Ecija province; in Cambodia, the Prek Thnot controlled irrigation project as part of the development of the lower Mekong basin.

The concept of functional literacy

8. As might be expected, the concept of functional literacy itself gave rise to more than one discussion. All the participants undoubtedly recognized that functional literacy meant any literacy activity centred on development, integrated into development, conceived as a component part of the development process. The Pilot Project in Iran emphasizes literacy leading to vocational training or pre-training. In this Project the functional character of the literacy programme derives from its association with the acquisition of job skills, the term "functional" aptly rendered by the phrase "work-oriented".

9. Several participants stressed that development is not an exclusively economic phenomenon, but that it also has its social, political, civic and cultural aspects. In their view, therefore, the term "functional" can also be applied to non-vocational literacy work. Literacy can be functional in the framework of health, social or civic education programmes. The participants also noted that none of the programmes in the Iranian Pilot Project aimed exclusively at acquiring job skills. For example, the programmes for women, at both Isfahan and Dezful, are directed essentially at various aspects of family life: hygiene, disease prevention, housekeeping, nutrition, child raising, family planning. The essential point is that whatever its orientation -

social or economic - the literacy activities should be viewed in the development context and form part of a development project.

Experiments and choice of problems

10. An outstanding feature of the Pilot Project which served as an observation site is its experimental character. It has been described as a sum total of micro-experiments relating to various aspects of literacy work. The participants dwelt particularly on one aspect: the role of literacy in the development process. There can be no development without innovation. It may be that to begin with the level of education and skill required for the adoption of a particular innovation is incompatible with the level of education and ability of the people who are expected to innovate. A functional literacy programme is only justified to the extent that it is necessary to raise the existing levels of education and ability to the standard required for the adoption of the innovation. What is needed, therefore, is to be able to demonstrate that a functional literacy programme made it possible to adopt a particular innovation and that such adoption was possible only because those concerned had learnt to read, write and calculate, and had thereby acquired the necessary knowledge and technical skills. It may be that innovations can be introduced by other means such as demonstration or oral explanation, without needing to fall back on the written or printed work or arithmetic. In industry, and particularly the textile industry, dexterity of gesture and movement may in some jobs yield a much greater increase in production than learning to read. Illiterate workers can handle fairly complex machinery provided that they have been trained to respond like obedient automata to certain signals. Here the reaction time is the essential factor in increasing output.

11. For functional literacy, the national and international experts recommended a method based on the identification and solution of problems. Thus - and this is one application of the principle of selectivity - problems should be chosen where illiteracy is a serious obstacle to their solution. For some problems education is not indispensable; observation and practical intelligence can take its place. With other problems, it is a sine qua non. Accordingly, every functional literacy programme should tackle "problems" involving a technical level which can only be reached or passed by the acquisition and application of the necessary knowledge and skill. This would simplify the task of evaluation, which is an integral part of experimentation.

12. While the choice of problems to be solved is an essential element at this experimental stage of the functional approach, the long-term objective of literacy work, as the participants stressed, must be kept in view. That objective is of course the education of the person, in a context of permanent education. From that aspect, the most important thing is not the actual ability to solve a given specific problem, but the capacity to solve any new problem. Functional literacy should be a kind of mental training in which the adult becomes accustomed to transferring the knowledge he has acquired to other

fields where they are applicable and learns to reason and generalize from the particular. He must learn to learn. This, indeed, is one of the preliminaries of development, which is a continuous process calling for constantly increasing skills. Development also requires better social integration; adults must learn not only to read, write, count and reason, but also to think, live and work together. From this point of view, the use of group discussion techniques in the Pilot Project literacy classes is a most valuable educational exercise, and one which helps to nurture positive attitudes to the problems the adults have to solve and an active spirit of co-operation and responsibility in tackling their collective problems.

The variables in functional literacy work

13. One of the characteristic features of traditional literacy teaching is the uniformity of the programmes, whether in content - without specific links with development - or the level of literacy aimed at. In contrast, the fundamental feature of the functional approach is the variability of the "problems", ranging from job training to fill a particular position in an industrial context to the adoption of a new farming method in an agricultural context; variability also in the level aimed at depending on the technical standard required, which differs according to the problem to be tackled. A single project like the Iranian Pilot Project can embrace a number of programmes with a variety of aims, each calling for its own level of literacy. One programme may aim at a level equivalent in arithmetic to what schoolchildren learn in their fifth or sixth year of primary education such as the calculation of percentages and interest or the rule of three; while another aims only at mastery of the four operations. Thus functional literacy programmes are made to measure.

14. Some participants stressed the importance of another variable: the level of education of the group called on to take part in a development project. The members of this group are not necessarily all illiterate; some may have been to school, the group none the less falling short of the educational level required for the execution of a development project. The role of functional literacy in such cases is to raise the prevailing educational level to the level demanded by the development project. The literacy level of a given group of people can be determined with the help of appropriate tests designed according to a literacy scale. This scale too can vary according to the knowledge and skills required by the development project. A scale intended for a training project in industry is not necessarily valid for literacy work associated with an agricultural programme. Referring to development programmes in their own countries, the participants emphasized the need to determine, when planning projects and as dictated by their technical content, the educational and skill levels of the people to be recruited. Project authorities and planners often fail to make this necessary pre-analysis.

15. Statistics on the educational level of a group of people can sometimes be misleading. Adults who attended primary school for three or four years

as children frequently fall back to the point where they have become illiterate again. As far as statistics are concerned, the participants noted that while the illiteracy rate gives a precise idea of the size of the problem, the literacy rate is of little significance because it makes no distinction between persons who can barely read and university graduates. A measure of the educational level of a given population would be more meaningful and useful.

Organization of a functional literacy project

16. It was clear from the briefings by the specialists assigned to the Pilot Project that its structures, organization and operations are tailored to the needs of what is first and foremost an experimental project. Because of this experimental character, any pilot project requires some administrative and financial autonomy in order to be able to preserve its own identity.

17. The participants recognized that a functional literacy project, even if it is not experimental, calls for a type of organization and measures diverging substantially from the country's usual administrative structures and procedures. The majority of them, with personal experience of traditional literacy work and the organization of so-called "national" campaigns, considered that the new approach involved a series of innovations and implied a conversion from the routine ways in which administrations acted and thought. The interdisciplinary character of a project such as the Iranian one, its integration into development plans, its introduction into the vocational and economic structures, presuppose joint and co-ordinated action by several ministerial bodies. The participants expressed the belief that co-ordination and co-operation were not enough; the activities undertaken must also converge. That means that the authority in charge of the project must have a clear idea, expressed in a coherent project proposal, of the objectives and ways and means of achieving them. This authority should be exercised by the ministerial or other body which assumes a major responsibility for the execution of the project.

18. With regard to functional literacy associated with vocational training in private enterprise, the participants underlined that in most Asian countries such enterprises did not concern themselves with training their labour force; they did not - or did not yet - arrange vocational training courses for their workers as is done in Japan and other highly industrialized countries. They felt that such training was the domain of the public authorities and not the responsibility of the private sector. Apprenticeships were served on the job, on the factory floor. Moreover, in some countries, particularly urban areas, there was already substantial unemployment. A number of the unemployed were illiterate.

19. The introduction of functional literacy programmes associated with job training in private enterprise is therefore an innovation in itself. The essential point is to convince the owners of their importance for the growth of the industrial sector. This calls for a study at enterprise level of labour requirements, the skills needed and the necessary educational level for each job.

This in turn calls for the public and private bodies concerned to meet and negotiate. It would be worthwhile to plan an information campaign by the press, radio and television to convince leaders of the private sector of their long-term interests. Hence the importance of a public relations section as part of the functional literacy project.

20. Considering the difficulties of various kinds inevitably arising from any new method of operations, several participants said that they felt it would be preferable, in the beginning stage, to include functional literacy projects as part of development programmes. Rather than setting up an autonomous literacy project on a vast scale, with its own structures and organization, its own range of programmes, it seemed desirable to plan literacy and labour training activities as components of development projects with limited objectives, as for example a controlled irrigation project. There would then be no need to set up complex machinery for inter-ministerial co-ordination - which usually works poorly. Co-ordination can be established in a rational manner within the project itself, as the responsibility of its directors. A "literacy component" can generally be financed from the project budget. This approach would insure that literacy is included in the development process, as recommended by Unesco, while avoiding upsetting the customary procedures followed by the administrations, which are always slow to adapt to new situations.

The literacy instructor

21. According to the national and international experts, turning a schoolteacher into a functional literacy instructor raises problems. The schoolteacher has difficulty in adapting to the functional approach, which combines literacy teaching and vocational training. It is preferable to draw on instructors from the same social and vocational background as the adult students in their classes. The participants, however, saw a number of other possibilities. They agreed with the experts' opinion regarding instructors in an industrial setting; training for jobs in industry has its own methods and procedures, and it assumes that the instructor is familiar with the factory background and production processes, which is rarely the case with teachers from the scholastic world. On the other hand, the same teachers can easily be turned into rural development instructors. A number of Asian countries already have some experience of rural development programmes carried out with the active help of village schoolteachers, sometimes with very notable results. The Army of Knowledge in Iran and the community schools in the Philippines and the Republic of Viet-Nam are at the spearhead of rural development. Thus the participants felt that the key to the problem was more a question of training than simply the social and vocational origin of the instructors.

22. The participants expressed the view that a good technician is not necessarily a good "communicator". The methods used in the process of literacy proper, with its rather elaborate techniques, such as the choice of words and phrases following a well-defined teaching progression, call for

skill which even a good shop foreman or junior agricultural officer may not possess at the outset. The mastery of a particular technique does not necessarily imply the ability to explain the why and how of that technique in an easily understandable way. A good functional literacy instructor should therefore possess, together with some technical ability, an equally evident aptitude for teaching. Whether the project draws on schoolteachers or technicians, they must first be trained. In a small project, it is of course possible to guide inexperienced instructors one step at a time by providing them every day with model lessons or teaching materials and explanations on their use. But the problem of training instructors will be inescapable as soon as the project reaches a certain scale; the instructors will no longer have the constant technical assistance of specialists and may find themselves left to their own devices.

The content of work-oriented literacy teaching

23. During the various visits, the participants noted that the pilot project programmes generally stressed the technological aspect of the training. In their view, it would be useful to attach at least as much importance to the socio-psychological aspects of the training, particularly to the acquisition of the attitudes and habits necessary for a given piece of work. Sense of responsibility, team-spirit, regard for accuracy and precision, punctuality, sustained effort, spirit of initiative, love for work well done, in short, development of professional standards, should be constituents of a work-oriented literacy programme.

24. The relationship between the content of a programme and the adults' motivations was also discussed. Success in literacy work depended on what an adult considered his personal needs were. It might happen that the "problems" presented by a literacy programme were not seen as such by the adults. Increased productivity, a factory job done more quickly, proper use of chemical fertilizers in the fields : these were all most important from the point of view of the economist, but his point of view was not necessarily shared by the worker and the peasant. It was of the greatest importance, therefore, that those whom one wished to make literate should be asked for their opinions beforehand, to find out how they saw the problem, what importance they attached to it and what they were prepared to do in order to solve it. The problems that the majority of them considered important could then form the starting-off point for the literacy programme.

Audio-visual aids

25. The pilot project's use of visual aids, particularly radio, was of great interest to the participants. They felt that radio broadcasts for literacy classes could help to maintain and strengthen the students' initial motivation regarding the literacy programme. Instruction by radio would solve the problem of distance and isolation in the areas where communications were poor.

26. Some participants stressed that, to be effective, radio broadcasts required a rather rigid organization which made no allowance for contingencies that might arise. Broadcasting hours had to fit into class time-tables. Lessons by radio also presupposed that there was some uniformity in the content of the literacy programmes. These conditions would not suit, for example, the Taj factory in Isfahan where the class time-tables varied according to whether the student-workers were on the day-shift or the night-shift. Moreover, the diversity of the programmes and their "tailor-made" content - a characteristic of work-oriented literacy teaching - seemed to be ill-adapted to a communications medium which used a single text prepared in advance, disregarding, with reason, the contingencies which might arise in a class : contingencies which an experienced teacher would know how to put to profit. The immediate "feedback" effect was completely absent. To make it worthwhile - one could not imagine a broadcast being made for a single class of about twenty adults - radio broadcasting needed a large audience for each programme. One participant suggested that, to lessen the inconvenience caused by changing time-tables, the instructors should tape-record their radio lessons during the broadcasting station's slack hours. The students could then listen to the recording whenever the class was in session.

Methodology

27. As regards the methodology of work-oriented literacy teaching, the experts assigned to the pilot project in Iran stressed that, in order to make a wise choice of method, it was essential to have formed a very clear idea beforehand of the goals to be reached in a work-oriented literacy activity. The major objective of such an activity was to change a given area, both economically and socially, by means of promoting its human resources. Man had to become the agent of change in his sphere of life. But the literacy activity would not reach its desired goal unless objectives, guiding principles, programmes, methods and educational procedures are harmonized. All of these elements of the activity had to be planned together in a logical way.

28. Having taken the desired goals into account, the method recommended by the pilot project in Iran was the solution-of-problems method. Apprenticeship (literacy work linked with vocational training) is the response of the person to learning about a problem which he perceived as a problem. In addition, what he learns (reading, writing, arithmetic, new technical skill) has to be applicable to real problems met in the factory, in the fields, or at home. That application, or transferring, is a central part of the apprenticeship process : It is this which makes literacy teaching and technical training work-oriented.

29. Another essential aspect of the method adopted in the pilot project is the connecting and integrating of the various training components into a single process of apprenticeship. Those components are apprenticeship in reading, writing and arithmetic; vocational training or elementary technical instruction;

socio-economic training; scientific knowledge; in some cases, drawing. Literacy work and technical training also appeared as closely integrated activities, each supporting the other, and their synchronization resulted in duplication and repetition which facilitated the process of assimilation and storage of knowledge.

30. One participant considered that it would be useful to begin a literacy activity with a series of discussions aimed at identifying the group's common problems. A preliminary stage like that would, in fact, be one of motivation and would help the members of the group to understand the programme better and to accept it and weigh it up. It would also prevent the raising of expectations and aspirations which the programme was not in a position to fulfil.

31. Another participant emphasized the distinction that could be made between methods for giving training and methods for giving information. From the educational point of view, the important thing is not what the illiterate person who has become literate has learnt, his knowledge or his skill, but the use he will make of them. The implications, rather than mere knowledge or skill, are the decisive factors in a development process.

32. The participants were interested in the idea of strategic siting of centres where model classes would be used to set an example and demonstrate the best teaching methods.

Reading material

33. The pilot project had produced a large amount of reading material for the early stages of literacy work: daily broadsheets, manuals, bulletins, supplementary readers. The wide range of the subjects covered was a feature of that material. The language barrier prevented discussion on the content of the reading material (none of the participants, except the one from Afghanistan, understood Farsi); it was only possible to have an exchange of views on the principles governing the preparation of reading material for a work-oriented literacy activity.

34. Referring to the problem-solving method recommended by those in charge of the pilot project, the participants stressed the advantage of applying the principles of that method to the preparation of reading material. According to that method, the problem per se is only the pretext, the stimulus: the central component is the reader himself and the reading material provides him with an opportunity to experience, make new observations, reflect and reason. The material, therefore, should be centred on the experience to be acquired, not on the development of the subject itself. To enable that experience to be acquired, the material must take into account - often implicity - the reader's knowledge, beliefs and abilities in respect of a given problem. In other words, the person whose job it is to prepare the material has first to find out, with the help of questionnaires, what his future readers know and what they do not

know how to do, and what their general attitude is toward the problem that formed the topic of the particular text. Thus, the initial stage in preparing a text for literacy classes should involve the future reader as well as the future author and the specialist in the field which covers the problem being dealt-with.[4]

35. The participant from Laos dwelt on the need for testing the textual illustrations beforehand. Research carried out in his country had shown that there was close correlation between a person's educational level and his ability to interpret pictures. An illiterate person cannot read printed material, neither can he interpret even the least diagrammatic kind of picture.

Evaluation

36. The participants gave close attention to the various experts' briefings on the evaluation of the Pilot Project. In view of the experimental nature of the Project, it was of the greatest importance to be able to identify and measure the changes that were a result of the work-oriented literacy activities. It was a complex exercise that had to comply with strict scientific standards and required an adequate number of qualified staff.

37. The participants recognized that, in a development project embracing a number of variables, it was rather difficult to isolate the variable "literacy teaching plus training". Which was the variable, in a given project, that made the most decisive contribution to development? Which one was it that was most responsible for increasing sugarbeet production at Pir Bakran from 16 to 28 tons per hectare? The fact that the producers had become literate, or the fact that higher yielding varieties of sugarbeet were being grown? How did one calculate the respective effects of those two variables? Similarly, the failure - or the lack of positive results - of a work-oriented literacy activity in a development plan was not inevitably to be attributed to defects in that activity; other factors could neutralize or annul its effects: for example, in the industrial field, insufficient investment, bad management of the enterprise, out-of-date equipment, unsatisfactory working conditions leading directly to fatigue, mistakes or accidents; in the agricultural field, products sold at a loss, lack of credit facilities for purchasing supplies (seeds, fertilizers, insecticides) because of a badly organized system of distribution. Evaluation should be able to determine the pre-conditions that are favourable for a work-oriented literacy activity.

38. The participants emphasized the great importance that the evaluation of the pilot project in Iran had for the future of work-oriented literacy teaching in Asia. The task at hand is to convince governments of the usefulness and effectiveness of the work-oriented approach. Unless it can be demonstrated

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4. Refer to: *Work-oriented functional literacy: reading and follow-up materials: report of a regional workshop.* Bangkok, Unesco Regional Office for Education in Asia, 1970.

scientifically that work-oriented literacy teaching, as a composite part of a development project, gives positive results, it will never be easy to overcome the reservations and the scepticism of the national organizations responsible for development planning.

39. Some participants suggested that a research programme should be undertaken independently of the evaluation of projects now being implemented. Such a programme could be entrusted, under Unesco's auspices, to the universities and social science institutes in the region.

40. When they were considering the possibility of having a work-oriented literacy activity in their own countries, the participants were agreed on the usefulness of evaluation as an integral part of the project. As few specialists are available in their countries, there can be no question of evaluation on such a large scale as that of the pilot project in Iran. The evaluation work, therefore, would have to be of a limited nature and concentrated on the main objectives of the development project. It would be advisable, right from the first stage of the project, to specify the points in the programme that would be evaluated. For example, if the intention is to teach farmers how to use chemical fertilizers correctly, it is first necessary to make a list of techniques and basic information - calculation of areas, calculation of percentages, application of the rule of three - required for carrying out the programme; and secondly, to determine the farmers' educational levels with the help of suitable tests. Those two indices, the required level and the actual level, enable the content and complexity of the programme to be determined. The results of the "literacy teaching plus training" activity can be measured by the rate of adoption of fertilizers (third index) and the rate of application of correct amounts of fertilizer (fourth index).

Votes of thanks

41. At the closing session, the participants wished to express their gratitude to Unesco for having organized the study visit and seminar, and to thank the Government of Iran for its cordial reception and unforgettable hospitality. They also thanked the national and international specialists for their friendly collaboration and congratulated them on the outstanding work they had done in the pilot project.

Recommendations

A. Recommendations to Unesco

1. Considering, first, the special importance of the Adult Functional Literacy Pilot Project in Iran as part of the Experimental World Literacy Programme, its wide range of programmes and activities and the results already obtained and, second, the presence of favourable pre-conditions - not only political, social, economic and material factors but available human resources as well - which have enabled Iran to undertake a series of significant experiments in functional literacy, the participants in the Seminar recommended that Unesco study the possibility of organizing, within the framework of the Pilot Project, research and training courses for specialists from other Asian countries. Such courses would enable these specialists to be intimately associated with Pilot Project work and activities, take part in useful exchanges and gain an introduction to functional literacy; on the other hand, the Pilot Project would benefit from the intellectual contribution of the specialists. Accordingly, Unesco was asked to study, together with the Iranian Government, the possibility of putting that proposal into effect.

2. Unesco should seek to strengthen and expand its programme of research on functional literacy under the Experimental World Programme. The participants particularly recommended that the following topics be studied:

   a) Introduction of literacy work into development processes, particularly those leading to innovations of both a social and a technical nature.

   b) Cost-benefit studies.

   c) Comparative study of the respective merits of functional literacy and basic education.

   d) Applications of the principles governing the vocational-training approach to other sectors of development.

   e) Methodology of functional literacy, particularly in relation to the learning processes.

3. Unesco should issue new handbooks and guides designed to promote a better understanding of the basic concepts of functional literacy and its approaches, methods and techniques, including the drawing up of programmes and evaluation. It would be useful for those handbooks and guides to be written on the basis of the information collected so far from the various experimental projects under the World Programme.

4. Unesco should ask other international bodies dealing with development aid to include a functional literacy component in programmes aided by them. In particular, the international finance organizations, IBRD and the Asian Development Bank should include clear provisions in their agreements with

Governments and the contracting parties executing programmes to ensure literacy teaching and training, if the situation so demanded, for the workers employed by the contracting enterprises.

5. Considering on the one hand the fact that Asia was the biggest reservoir of illiteracy in the world, and on the other hand the value of meetings such as this Seminar, the participants recommended that Unesco organize meetings of specialists from the countries of the region on an annual basis. The programme for those meetings should include the observation and study of a functional literacy project in the course of execution and a report on recent research; in that way, all the interested specialists would be kept up to date on latest developments in the subject.

B. Recommendations to Member States of the Asian region

1. Governments should organize seminars at the national level on the concept of functional literacy and on its role in promoting development. Representatives of the technical ministries directly concerned with development should be invited to attend, beginning with the national development planning organ. A further objective of the seminars would be to examine ways of introducing functional literacy into the projects and programmes of the various ministries.

2. Considering that the training of the necessary technical staff is a prior condition for literacy activities, the participants recommended the establishment, preferably within existing training centres for development officers, of sections especially designed for the systematic training of such technical staff. Future specialists should be trained at higher educational establishments. If necessary, these training programmes should be able to obtain Unesco technical assistance.

3. The interest of the universities and research institutes in the countries of the region should be awakened to the many problems posed by the relation of functional literacy to development. Students should be encouraged to carry out studies and research on this new field as thesis topics.

4. Because of the novelty and also the complexity of functional literacy, it is essential to plan from the beginning for an administrative body with prime responsibility in this field. This body, the powers of which would need to be clearly defined, would need to be able to work in close liaison with the technical ministries (agriculture, rural affairs, public works, industry, co-operatives) and would have special responsibility for the training of officers and the teaching side of functional literacy.

5. In view of the crucial importance of "follow-up", whether in a traditional literacy campaign or functional literacy work, the authorities responsible should provide for and plan, as an integral part of the programme, the activities to follow literacy teaching itself.

APPENDIX

LITERACY AND DEVELOPMENT

Introduction to Functional Literacy

World situation

1. The world in 1950 had some 700 million illiterates in an adult population of 1,579 million; in 1960, 740 million of 1,881 million adults were illiterate; it is estimated that in 1970, some 810 million of 2,335 million adults will be illiterate. These figures underline two facts: first, the substantial number of illiterates who still people our planet in this second half of the twentieth century, and secondly, the constant increase of adult illiterates in absolute terms, despite the marked increase in literacy rates. The main regions where illiteracy is prevalent are all in the countries of Asia, Africa and Latin America where school enrolment rates are lowest.

There are other very significant correlations between illiteracy and certain social economic factors. A study carried out at the University of Ohio[1] correlates illiteracy on the social level with high birth rates and with similarly high infant mortality rates. It is recognized that illiteracy in the mother is an important factor affecting the child's chances of survival.

In the economic sphere, there is a significant correlation between illiteracy and the gross national product (GNP). It is no accident that the regions where illiteracy predominates are the least developed. The wide scope of the problem of illiteracy, its vastness, its serious implications from the cultural, social and economic point of view explain why Unesco attaches primordial importance to the elimination of what has been called a profound injustice, a scandal to the conscience and a permanent threat to peace. The consensus now recognizes that illiteracy is a serious problem and that its eradication is a duty involving the whole of the human race.

At the present time, Asia forms the largest reservoir of illiteracy in the world.[2] It is estimated that this continent now contains more than 243 million illiterates in the age-groups of from 15-44 years; i.e., the economically active age-group. This figure means that in Asia five adults out of ten are illiterate. And paradoxically

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1. Pan Sothi. *Trends in World illiteracy since 1900 and its relation to certain educational, social and economic factors*. Ohio University, 1966.

2. There are of course notable exceptions, such as Japan, which has one of the highest literacy rates in the world.

enough, with the exception of some all too rare countries, it is in Asia that the action taken to eliminate adult illiteracy seems weakest compared to what is being done in other parts of the world.

Literacy or ~~of~~ school attendance

2. The fight against illiteracy is not something new. During the last century, in the countries engaged in the process of industrialization, in Europe and North America, the establishment of a system of universal and compulsory primary education enabled illiteracy to be gradually eliminated. It was also through school education that Japan succeeded, after some fifty years of constant effort, in eradicating illiteracy among the masses of the people, and there were virtually no more illiterates in the country from 1920 on.

Universal and compulsory school attendance may appear in the long term to be the decisive instrument in ensuring a minimum of education in future generations. But how many years do primary schools need to bring literacy to a given population? In the Republic of Viet-Nam, the village of Khanh Hâu was provided with a primary school in 1923. In 1958, 25 years later, the illiteracy rate among the villagers was still 30.5 per cent. In Iran, the school in the village of Mohammadabad, near Karaj, was started in 1953. Thirteen years later, more than 85 per cent of the adult population was still illiterate. Again in Iran, at Poenak, in the plain of Varamine not far from Teheran, the primary school goes back more than 30 years, since it was built at the command of Reza Shah, father of the present Sovereign. The masters at the school estimated four years ago that more than 70 per cent of the adult population of the village was still completely illiterate.[3]

Undoubtedly the introduction of primary education so that all children can attend school helps to stem mass illiteracy at its source. But it is a long-term measure, and long-term here means decades. No country, particularly in Asia, can wait thirty or forty years for its population to attain the minimum level of education required for economic and social development.

The fight against illiteracy : national campaigns

3. Not until the beginning of the twentieth century and the deep social upheavals which marked the end of the First World War (1914-1918) were the earliest mass literacy campaigns launched. Immediately after the Revolution in October 1917, the Russian Socialist Federal Soviet Republic took a series of specific measures to deal with the problem of illiteracy. The general census of 1897 had revealed that in Russia as a whole, 35.8 per cent of the male population and 12.4 per cent of the female population knew how to read and write. Education was still less widespread among the allogeneous minorities in the Asian territories.

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3. It is almost certain that many present illiterates did have limited schooling, but, living in an environment of illiterate adults, they quickly relapsed into illiteracy.

According to the same census, there were 5 educated persons in every thousand among the Tadzhiks, 16 among the Uzbeks, 7 among the Turkmens and 7 among the Yakuts. The most important of the measures taken by the RSFSR was the decree on the suppression of illiteracy, promulgated on 26 December 1919. That decree stipulated that "all illiterate inhabitants of the Republic of from 18 to 50 years of age must learn to read and write in their mother tongue or in Russian, at their choice". The obligation to learn was purely moral; no administrative pressure was put upon the population. Between 1920 and 1941, some 50 million illiterates and 30 million semi-illiterates attended classes. Illiteracy had been practically eliminated by 1941, or at the end of 20 years' sustained effort. According to the 1959 census, the literacy rate in the Soviet Union was 98.5 per cent. Mass literacy formed part of the country's development plans. Action was taken simultaneously by the central Government, by the various States forming the Soviet Union and by organizations in the social field. Co-ordination was ensured by a single body for the whole country.[4]

During the same period, another country was tackling the problem of mass illiteracy; this was Mexico, which was struggling to carry through its agrarian revolution. In June 1920, José Vasconcellos, then rector of the University of Mexico, launched the first national campaign for "the redemption, through the medium of education of the Mexican people, slaves of poverty and ignorance".[5] Because of inadequate preparation, organization and funds, the campaign ended in complete failure. Nevertheless, the failure had positive results because it was the origin of the establishment of cultural missions and of a new type of rural school, now known as community schools, whose activities include both in-school and out-of-school work, the latter particularly concerning adults, especially illiterates.

4. The end of the Second World War and the attainment of independence by many States saw the launching of a veritable wave of campaigns and crusades against mass illiteracy in Europe, Latin America, Asia and Africa. In a number of countries in Asia, for example India and the Philippines, private civic organizations did not wait for independence to take up the fight against ignorance. In the eyes of the national leaders, the struggle against illiteracy was only one aspect of the fight against colonialism. The aims of literacy were political: it was a question of awakening an awareness of national realities in the masses through the medium of education. With independence in several Asian countries, literacy campaigns were launched on a national scale. Prompted by ethical and social considerations, the campaigns were intended to bring literacy to the greatest possible number of adult illiterates in

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4. International Conference on Public Education. 27th, Geneva, 1964. *Literacy and education for adults; research in comparative education.* Paris, Unesco; Geneva, International Bureau of Education, 1964. 179 p. (Publication No. 266).

5. See: Méndez Bravo, A. *La escuela rural mejicana.* Santiago de Chile, Imprenta Lagunas, 1929.

order to compensate for the absence of schooling for the masses. Sometimes, because of the ethnic or linguistic diversity which is a characteristic of many Asian countries, the campaign also aimed at the assimilation and integration of heterogeneous minorities into the nation as a whole through the dissemination of the national language.

A number of these campaigns, after a promising start, were short-lived. The size of the problem to be tackled was out of all proportion to the means and resources devoted to it. Adult education departments specially set up in the Ministries of Education were given responsibility for trying to carry out inauspiciously the task of mass literacy. Despite the talent and devotion of their directors and staff, the activities of these departments could not, even in the long run, hope to eliminate illiteracy. The departments generally lacked sufficient resources,staff and funds - often a fraction of one per cent of the budget for education - to consider such a far-reaching operation. However, note should be taken of the national campaigns undertaken in recent years by two Member States in Asia, Indonesia and Iran, both marked by a tenacious and stubborn desire on the part of the countries' leaders to finally eradicate mass illiteracy.

5. On 17 August 1960, the President of the Republic of Indonesia gave the order to embark on a vast programme to eliminate illiteracy among the adult population of the 5,000-or-so islands which form the country. A four-year programme was drawn up by the education department. It called for a gradual extension of activities, province by province, according to a pre-established time-table. The literacy programme was financed by the Government with the support of local communities. All adults able to read and write had to join in this mass literacy work, as a patriotic duty.

Literacy was taught in three stages. A preliminary stage, lasting a month, was intended to enable illiterates to learn the alphabet and some simple words.[6] The second stage, of three months' duration, was designed to initiate adults in the acquisition of the techniques of reading and writing. The third and last stage was planned to help consolidate the mastery of reading and writing. For each of the stages, the education department published a single manual. On 31 December 1964, Indonesia was proclaimed *"Bébas Buta Huruf"*, that is to say "free from letter blindness". More than 37.5 million individuals had become literate. Undoubtedly the vast majority of the new literates had attended classes for only three months. Many of the remainder had followed the course for only a month, and had in fact merely learnt to write the letters of the alphabet. In other words, although millions of individuals had become literate, their level of education was extremely low. In 1967, in an operation to check the illiteracy rate among persons of over 12 years of age in the country's various provinces, the Indonesian national authorities discovered that nearly 30 per cent of the population covered

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6. The Indonesian language, *Bahasa indonesia*, is a phonetic language which is easy to read.

by the census was still illiterate. Some provinces had only a negligible illiteracy rate (such as West Java with 7.2 per cent); on the other hand, other provinces recorded a rates such as that of East Java (74.3 per cent), Riau (40 per cent) and Lampung (32.9 per cent). There were reasons for this renewed outbreak of illiteracy: many young people remained illiterate because they had never received any schooling - for lack of schools - or because they had dropped out of school prematurely. Many adults had relapsed into illiteracy for a variety of reasons, including the absence of reading material. The present five-year development plan (1969-1974) aims at stepping up the struggle against illiteracy and post-literacy activities.

6. The 1956 general census in Iran revealed that among the population over 10 years of age, barely 14.9 per cent were able to read and write. In the years following the census of the literacy rate, there was no doubt some increase as a result of the gradual expansion of school enrolment and also, to a lesser degree, of the fight against illiteracy conducted along classical lines by the public authorities and private organizations. The results of the latter, it should be noted, were somewhat disappointing. Between 1956 and 1964, according to official statistics, more than 4 million illiterates attended literacy classes but barely 2.15 million finished the courses. On 26 January 1963, a national referendum approved the measures proposed by H. M. the Shahinshah. Among these revolutionary measures, mention may be made of land reform, nationalization of forest reserves, profit-sharing among the workers in industrial enterprises, female suffrage and the setting up of the Education Corps.[7]

The Education Corps, composed of school-leavers who were given the rank of sergeant, had a two-fold mission: to open schools for children where there were no schools, (thus in the majority of Iran's some 49,000 villages) and to bring literacy to adults in rural areas, in order to prepare them to take full advantage of the land reform[8] and other measures introduced for their benefit. In 1965, the activities of the Education Corps were strengthened by the launching of a vast national campaign aimed at the gradual but complete elimination of illiteracy in towns as well as rural areas. A national committee was set up with extensive powers and H.I.H. Princess Ashraf, sister of the Sovereign, as its prime mover. The national campaign began with the organization of a pilot project in the Khazvin region some 150 kms. to the west of Teheran. Since 1964 this region, which was seriously disturbed in the 1962 earthquake, has been the setting for a vast agricultural development project. There were other reasons for its selection for the pilot project, however. Among them were that two-thirds of the population spoke a non-Iranian language, either Azeri Turkish or Kurdish, and that localities are widely scattered and difficult of access because of the region's mountainous terrain.

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7. These measures as a whole, which were supplemented by others in subsequent years, have been called the 'White Revolution'.

8. Land reform affected 1.5 million rural families, 83 per cent of which were families of landless farmers.

The pilot project enjoyed the co-operation of the Ministry of Education, which provided teachers and school premises; the Army obtained transport, including several dozen jeeps, the Ministry of Information made the radio station available for the project and a large number of sergeant teachers in the Education Corps were concentrated in the pilot area and put at the project leaders' disposal. It may be noted that the project drew on volunteer teachers recruited from persons with at least a primary teacher's certificate. Each volunteer signed a contract with the Khazvin Literacy Committee under which he was to be paid 200 rials[9] for each illiterate to whom he taught basic literacy. In 1966, without waiting for the lessons which might be drawn from the experience at Khazvin, the National Committee extended the campaign to other regions of Iran, to the oil-producing areas in the South, to the Capital and to the towns of the central province. Today the national campaign, which has lost virtually none of its initial dynamism, covers the whole country. It is financed partly from public funds and partly by voluntary contributions. A noteworthy fact is that all the ministers, senators, deputies and officials of all ranks in Iran, copying the Sovereign's example, gave a sum equivalent to one day of their annual salary to finance the national campaign.

The main objective, prompted by a desire for social justice, remains the literacy of the greatest possible number of illiterates. The fact that literacy work can contribute directly to economic development does not seem to be a major concern of the campaign promoters. It should be pointed out that during the implementation of the pilot project at Khazvin, neither its organizers nor indeed those in charge of agricultural development attempted to harmonize, still less to co-ordinate their efforts, as if literacy and development were two completely unrelated things. It is no doubt premature to make an assessment of the national campaign launched by Iran barely four years ago. It may be wondered, however, if the tangible results obtained by the present campaign, after earlier campaigns had more or less failed, are not the result of the programme of reforms, and especially land reform, because of the deep changes they have brought about, the outcome of which has been the realization, particularly among the country's rural masses, of the importance of education.

Characteristics of traditional literacy teaching

7. What are the main technical characteristics of traditional literacy teaching, to distinguish it from functional literacy, as they appear in nation-wide or more limited campaigns?

First of all, its main characteristic is that it is both diffuse, aiming to educate as many illiterates as possible, and extensive, confining itself to an elementary knowledge of reading, writing and arithmetic. The planning of a campaign is generally based on a territorial approach according to the number of illiterates and the funds and resources available. Literacy programmes broadly follow school syllabuses

9. 75 rials = U.S. $1.00.

with their division into subjects. It is mostly a matter of teaching in a few months, or even a few weeks, a "digest" of the first two or three years of primary education. Methods and techniques are gererally based on the use of a single primer. Diversification in the reading material comes only with the books for further reading.

The instructors are chiefly school-teachers or volunteers, paid or giving their services, chosen with a minimum educational level as qualification. The campaigns are organized sometimes by the Ministry of Education and sometimes by a public body in the social field, or by national or local civic committees or private organizations.

As most Governments view mass literacy as a social enterprise, it is financed from the national budget under social expenditure; in other words, the State's financial support is often modest, and never sufficient. Above all, voluntary contributions are called on. The evaluation is in quantitative terms and relates to the number of new literates and the per capita cost.

No doubt over the past 25 years mass literacy has enjoyed some partial successes, but on the whole the results have not been encouraging. The causes for this negative outcome are known: they include the lack of proportion between the objectives and the means of all kinds employed to achieve them; the lack of continuity of effort - and mass literacy is a long and exacting operation; the absence of a clearly defined national literacy programme and a misappreciation by many of those in charge of the significance and real implications of the problem of illiteracy; there is also the absence of an adequate organization and structures at the various administrative levels, and the marginal position occupied by adult literacy in most national development plans.

These causes of failure are political, administrative or socio-economic. Other causes are less well known. It has long been believed that literacy was essentially a question of teaching, that it was sufficient to have a good organization, an efficient learning method, a good reading manual and instructors with the ability to teach. While these elements are necessary, however, they are scarcely enough to ensure the success of a literacy operation. Illiteracy, and consequently literacy, are complex phenomena. It might perhaps be useful briefly to review some of the elements of this complexity, and particularly what might be called the dimensions of illiteracy.

The problem of illiteracy : its dimensions

8. First of all, and this we tend to forget, illiteracy has a historical dimension. It is not illiteracy which is a new fact in the history of man - on the contrary, it is as old as mankind itself - but the recognition of the seriousness of this fact and of its incompatibility with prevailing ideas of human dignity.

And this recognition in turn is the result of another great innovation in the history of man, the fact that at the end of the last

century and the beginning of the twentieth century millions of men and women, in town and country, acquired the skill of writing, particularly in the industrialized countries.

Previously for thousands of years, the ability to write had been the privilege of a relatively small group of people, nearly always living in the towns. Some 30 kms. to the South of Dezful, headquarters of one of the functional literacy sub-projects in Iran, lies the township of Shush, the Susa of ancient times, a town which has been important for several thousand years, first as capital of the Kingdom of Elam, and then, from the time of Darius the Great (about 521 B.C.), as winter capital of the Achaemenian Empire. In about 300 B.C., writing first appeared at Susa, beginning with the pictographic proto-elamic script, which we are still unable to read. Excavations, which have brought to light fifteen cities built one on top of the other, have revealed that the early inhabitants of Susa knew how to read and reckon(many clay tablets with accounts on have been found). Today, nearly 5,000 years later, in the immediate vicinity of the old Elamite capital, nearly 90 per cent of the population of the village is illiterate. This observation should give us one of the keys to the problem of illiteracy. The introduction of writing coincides with the formation of large cities. The presence of tens of thousands of individuals made it no longer feasible to deal with political, administrative, military and economic matters by simple oral communications. The volume of population encouraged the creation of an impersonal means of communication through an effective intermediary: writing.

This fact suggests a second dimension of the problem of illiteracy; its sociological dimension. In origin, the act of reading is an urban act. On the other hand, for thousands of years, and even today, in rural societies made up of villages often containing only a few hundred individuals, oral communication and face-to-face contact are sufficient for the multifarious relations of daily life. That is why illiteracy today is still first and foremost a rural occurrence. In a number of Asian rural societies, however, writing is by no means unknown. On the contrary, writing has existed and continues to exist as an institution personified by the scribe, whom the illiterate person uses as a go-between to communicate with others at a distance. Unlike town-dwellers, villagers do not feel the need to be able to read and write because their everyday life and the conduct of their family affairs and jobs do not invoke this need. As he feels no need to read and write, the rural illiterate does not attach any special importance to it.

Here we have a third dimension of the problem of illiteracy: its cultural dimension. In May 1963, students taking the community education course at Saigon University made a survey of the scale of values of the inhabitants of four villages. Among the values which the villagers were invited to place in order of importance was "to be able to educate oneself". To the illiterates that meant having the opportunity to learn to read and write, to the villagers who had been to school, it meant being able to take their education further. The results of the survey showed that the less education a person had, beginning with

the illiterate, the less importance he attached to being able to educate himself (although he attached prime importance to his children's education); and that the more educated a person was, the more likely he was to give a high ranking to the value "to be able to take one's education further".

Moreover, in the rating of values according to job, there was a very marked difference in the position in which this value was placed by agricultural and by city workers. While the former put it at the foot of the scale, the latter gave it a prominent place. Knowledge of the system of values of a given population is essential if one wishes to determine the reactions of that population to a literacy programme. As may be suspected, those reactions are not always positive. A population may even react in a direction more or less opposed to the promptings of the organizers. When the pilot project was started up in the villages of the Khazvin region in Iran, the peasants, who for the most part saw no point in becoming literate, said: "If the Government wants us to learn to read, let it pay us".[10] Certainly, to the campaign organizers, illiteracy is a scourge and the elimination of that scourge is an act of social justice. But what do the illiterates themselves think? Does learning to read and write strike them as a desirable, useful, important thing? Experience shows us - and there are many examples - that at the beginning there is often confusion between the system of values of the promoters of literacy programmes and the system of values of the recipient populations. All too often, there is no connexion.

9. We can picture a sort of scale to represent the diversity of situations of communities from the point of view of illiteracy. At the ends of this scale - at the poles of this continuum or continuous series, to use a sociological expression - we find, on the one hand, almost completely illiterate social groups, and on the other, social groups with virtually no illiterates.

On this continuum, therefore, may be represented the illiteracy rates of the various countries of the world or of a continent, or the variation in these rates among the communities in one country. Indeed, within individual countries there are social groups whose illiteracy rate is relatively high and other groups where illiteracy affects only a minority.

Some Asian countries, such as Thailand, have statistics on illiteracy by province. These statistics show substantial regional variations and it can be assumed that the situation is the same in most Asian countries where illiteracy is still widespread. These variations may have serious effects on the fight against illiteracy. In fact, the illiteracy rate of a given community directly affects the attitudes and behaviour of its members towards literacy, and in a more general way,

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10. Shernberg, B. *Traditional society and development in the Karaj Plain villages.* Teheran, Institute of Social Study and Research, Teheran University, 1966. p.2

towards the practice of reading. And this brings us to another dimension of the problem of illiteracy: its psycho-sociological dimension.

The attitudes and behaviour towards literacy of individuals in a society where illiteracy is still widespread may differ enormously from those prevalent in a society where illiteracy is in the process of disappearing. We have already mentioned the negative attitude of the villagers of the Khazvin plain when the pilot project began. This attitude can be explained by the mainly illiterate environment. But in the village of Khanh Hâu in Viet-Nam, where an opinion poll was taken in 1958 on literacy and where the literacy rate was already nearly 70 per cent, the few men who were still illiterate were ashamed not to be able to read or write. They did not dare take part in their community's public activities for fear of being laughed at for their ignorance. In that Vietnamese village, the illiterates behaved as if socially handicapped.

In an urban environment where most communications are relayed by the printed or written word, by notices, signposts, labels, price tags, instructions for use, illiteracy tends to become an obsolete phenomenon. In the vast open book of the modern city, the illiterate is confronted at every turn by the over-riding need to be able to decipher the alphabet. Experience shows that if they are given the opportunity, illiterates living in urban surroundings will come to learn in swarms. In the town of Khazvin, more than 70 per cent of the adult students enrolled successfully concluded the pilot project literacy courses, against 10 per cent of those enrolled in the villages.

10. The promoters of literacy campaigns or programmes have always concentrated almost exclusively on the acquisition by the illiterates attending their classes of the techniques of reading, writing and arithmetic. The success - or failure - of their enterprise is measured by the number of people successful in the final examination which concludes the session. Undoubtedly literacy work proper is of fundamental importance. However, it should not divert attention from another essential element: the use that the new literates will make of their mastery of reading, writing and arithmetic in everyday life.

Investigations in Asian countries have taught us that people may have acquired, at school, during a literacy course or by other means, a knowledge of information which educators consider important and useful. Investigations carried out with national educators in Viet-Nam, Iran and Thailand dealt with a population's knowledge and corresponding behaviour regarding a selected theme: the pollution of drinking water. In those three countries, the individuals with sufficient schooling knew - because they had learnt it - that water could be polluted, contain germs, and communicate diseases. They knew but did not believe it; they did not believe it because they had never valorised that knowledge. They continued to believe and do what their traditions, in brief their culture, had taught them. They behaved as though the knowledge acquired on the school benches was without any real value.

A similar fate often awaits literacy work in societies where all communications are always made orally. Although they have learnt to read, many literate people continue to behave as illiterates because their society and the behaviour of its members is still pre-literate. In a Mekong riparian country, bilateral agricultural extension experts working at an experimental agricultural station complained that although 53 per cent of the farmers had attained a relatively high level of literacy (equivalent to the third year of primary education), they made no use of the printed literature distributed to them. The farmers who nonetheless knew how to read did not read it. Extension work had to be done orally, with all the risks inherent in the verbal transmission of often complex techniques. No farmer was able to remember a sequence of agricultural operations in its entirety. Out of ten or so successive operations, they only remembered three, or rarely four. Often the farmers reversed the order of operations, distorted the instructions given, or even invented them. These are the familiar distortions met with when an oral message is repeated, which could have been avoided by reading a reference text.

In another Mekong riparian country, almost all the inhabitants of a village - where more than 90 per cent of the adult population had attended school for three or four years - had regressed to the point of relapsing into illiteracy. And yet the village had a reading centre admired by all the visitors. In fact, the centre's only readers were schoolchildren fond of picture books and an elderly eminent person interested in agricultural literature for his experiments in vegetable growing.

In these two examples, the behaviour of individuals who know, or had known, how to read, may be explained by the fact that their society was still fundamentally a pre-literate one. Despite the instruction given at school, the innovation of the practice of reading had not been adopted. No doubt some of the preconditions which would have made that innovation meaningful to them were lacking. These examples also show that literacy should go beyond the mere acquisition of the fundamental techniques of reading and writing. It calls for the practical and more or less daily use of reading. It assumes, as a precondition for success, situations involving the need to be able to read and write.

11. One last dimension of the illiteracy problem is of particular importance to educators: this is its psychological dimension. Recent investigations based on the setting of tests have helped to clarify what may be called the psychological profile of the illiterate. To be illiterate means not only to be cut off from communication through the printed word, that ever fresh source of information, but also to perceive, comprehend, think and reason in a very different way to a person who lives "in a world submerged by the written word, pictures, drawings, sketches, diagrams, posters, the cinema, television".[11]

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11. Laos: Unesco Mission. *Functional literacy*, by R. Couvert. Paris, Unesco, 1968. (Ser. no. 888/LMS.RD/EDA) p. 44.

What are the main psychological characteristics of the illiterate person? First of all, there is his difficulty in understanding images, what C. Maguerez has called image blindness. The person who is illiterate, Roger Couvert writes, does not see an image as a representation of the real, but as a thing in itself.[12] The understanding of an image requires education in the same way as reading and writing.

A second characteristic of one who is illiterate is his atechnicality, that is to say his inability to understand straight away the physical or natural laws whose applications have led to the development of modern technology.[13] His mind has not been trained to isolate facts, to compare them, to identify the cause-and-effect relationships between several successive phenomena.

Another psychological trait which distinguishes the illiterate person is his lack of rigour and precision in estimating measurements of length, area, weight and, above all, time. These gaps are all obstacles to the rationalization of behaviour in relation to the requirements of development, particularly in an industrial setting, where there is a direct correlation between productivity on the one hand and an understanding and rational utilization of the notions of time and space on the other.

The illiterate person's lack of precision is may be related to the fact that, although he usually knows how to count,he can barely count beyond a hundred. While he sometimes knows how to add, subtract, even multiply (addition repeated several times) in units and tens, division is barred to him because it is too difficult.

Finally, the last and perhaps most significant psychological trait, the thought of one who is illiterate remains concrete. He thinks in images and not in concepts. His thought is in fact a series of images juxtaposed or in sequence, and hence it rarely proceeds by induction or deduction. The result is that knowledge acquired in a given situation is hardly ever "transferred" to a different situation to which it could be applied, thereby restricting effective opportunities for progress.

This inability may occur also with adults whose schooling was inadequate. The villagers of Khanh Hâu, who had learnt at school about the "cabbage white" (pieris brassicae, a butterfly not found in Viet-Nam) and its life cycle, had never applied this school learning to the control of a moth, the "sau nach" (Schoenobius bipunctifer) whose larva, a stem-borer, destroys part of their rice harvests each year. Because their school education was not functional, the villagers had not known

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12. *ibid.* p. 44.

13. Illiterate societies possess sometimes very elaborate craft, agricultural, fishing, or hunting technology. The fact remains, however, that in such societies this technology derives from empirical knowledge and not from the reasoned application of scientific knowledge.

how to transfer their knowledge, although it would have been very useful for the local economy. Their education, such as it was, had been aimed more at the accumulation of knowledge, and its faithful reproduction at examination time, than at training the intellect and particularly the development of reasoning.

It is worth mentioning that the same might be said of some literacy operations, those which are confined only to the acquisition of the techniques of reading and writing by traditional methods. It is doubtful whether they succeed in transforming the mentality of the illiterate, the way he perceives, thinks and reasons, so as to turn him into a modern man. Psychologically speaking, the literate thus taught remains "illiterate".

A new strategy

12. The 1965 World Congress of Ministers of Education on the Eradication of Illiteracy organized by Unesco on the initiative of H.I.M. the Shahinshah of Iran (which opened on 8 September - a date since commemorated each year around the world as Literacy Day) marked what it is hoped was a decisive international turning point in literacy. It was at that Congress, held at Teheran, that the representatives of the 89 participating countries adopted the selective approach.

This approach may be defined as a strategy providing for the execution of a limited number of "intensive" projects rather than "extensive" campaigns. As a Unesco document says, "the eradication of mass illiteracy, of course, remains the final goal, but it is thought that this goal can better be achieved gradually by methodical progress in carefully selected sectors".[14]

The reasons for that decision by the Teheran Congress are evident. It is materially impossible to make more than 700 million people literate in the space of a decade. To educate this considerable mass of men and women would require enormous funds. The very countries where illiteracy is prevalent have only a low budget; the proportion they devote to expenditure on education often reaches 15 to 20 per cent of the national budget, that is to say, the maximum possible in view of the needs of the other sectors.

The Teheran Congress recognized that literacy should not be regarded as an end in itself, but that it should be linked to the permanent education of adults (general education, civic instruction and vocational training) and that it should occupy its legitimate place in each country's national education plan and over-all plans for economic and social development. The big new feature at Teheran was the affirmation that there is a causal relationship between literacy and development, that literacy is a precondition of development, and that the economic returns it brings make its inclusion in development plans essential.

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14. Unesco. General Conference. 13th Session. *World literacy programme; item 15.1.5 of the Provisional Agenda*. Paris, Unesco, 1964. 23 p. (13C/PRG/4) p.8

It should be stressed that the adoption of that position at Teheran had been preceded by a long and detailed analysis of the various aspects of illiteracy suppression by the Unesco secretariat, by study missions to different countries, and at meetings of the International Committee of Experts. Its starting point was United Nations General Assembly resolution 1677 (XVI), adopted in December 1961, inviting Unesco to make a general review of "the question of the eradication of mass illiteracy throughout the world, with the object of working out concerted and effective measures, at the international and national levels, for such eradication". Before Teheran, the selective strategy associating development with literacy had already aroused the interest and support of many Member States, as shown by the many resolutions adopted at the international meetings of Unesco and at sessions of the United Nations General Assembly (1963) the Economic Commission for Africa (ECA) (1964), the Economic Commission for Asia and the Far East (ECAFE) (1964) and the Conference of Ministers of Education of African Countries (1964).

13. It was at Teheran, however, that the expression "functional literacy" came into its own. Functional literacy means all literacy operations oriented toward development, integrated in development and made a component part of a development project. It is distinct from so-called traditional literacy in that it is no longer an isolated and separate activity viewed as an end in itself.

Functional literacy should be seen from the viewpoint of development, and lead to technical and vocational training. As the qualifying adjective "functional" indicates, it fulfils a function in relation to needs and specific problems. In other words, the programme of a literacy programme can vary according to the nature of the problem to be solved. The fundamental characteristic of such a programme is that it is "made to measure", that is to say, as was stressed at an expert meeting at Turin (1968), "to fit the mentalities, knowledge and ability of the population concerned". Because it is "made to measure", the level of literacy work can differ according to the problem to be solved.

The promoters of traditional literacy normally set their programmes at a uniform level equivalent to primary grades III and IV. They assume that this level corresponds to an adequate mastery of the techniques of reading, writing and elementary arithmetic. This is because they see literacy as an operation in a vacuum, without any relation to development. We shall see later that the modernization of agriculture - an imperative in the Asian countries - is quite simply blocked because nearly all farmers in these countries lack certain fundamental knowledge, particularly in arithmetic, which is taught in grades V and VI.

Functional literacy in an industrial environment

14. In the sphere of development, most developing countries have set themselves two major goals: industrialization and the modernization of agriculture. Industrialization requires capital, raw materials, power; it also presupposes a high technical level, professional skill, real knowledge of how to do things. It would be inconceivable without skilled and specialized labour at the different levels of the enterprise.

APPENDIX

The industrialization of a country calls for the training, not only of technical staff, but also of various bodies of workers with the necessary skill and ability. A country embarking on the process of industrialization, however, does not initially possess workers inured to industrial production. Enterprises very often have to take on workers without job qualifications from rural areas. These workers must adapt themselves to the environment of the enterprise, which is concerned with output and productivity. Accustomed in their villages to regulating their activities by the rhythm of the natural elements - sun, rain, the lunar months, the seasons - they have to be brutally broken in to the rhythm of machinery and to the demands of precision, accuracy, punctuality and order required for industrial production.

This lack of adaptation poses many problems which slow down operations or make them expensive and non-competitive in the market. As examples of this, one might mention frequent poor machining and wastage of raw materials, numerous breakdowns of machinery, poor maintenance of equipment, breakage of tools, untidiness, accidents at work, serious absenteeism. To be productive, industrial activities require various levels of training in their workers according to the nature of their work.

But industrial training in the countries of the developing world calls for more than just copies of the training given in the industrialized countries. Depending on the particular case, it calls for not only the acquisition of skill or knowledge, but also a transformation in the manner of being and functioning. The trainers must not only teach a trade or a motional or manual skill, but also instill a new mentality and awaken job awareness. Industrial training includes elements such as vocational technology, drawing and mathematics, safety, hygiene and socio-economic and civic matters. It would be hard to conceive of anyone mastering these subjects without a certain level of literacy, or even education.

Job study is a key element in functional literacy programmes based on vocational training. Such programmes therefore vary to a considerable extent according to whether a job requires a skilled worker with a real trade or whether it can be filled by a specialized worker who needs only the ability to carry out precise but limited work. If illiterate or semi-literate workers are to be trained to become skilled, functional literacy will be an integral part of the training process, as was the case in North Africa in the integrated literacy and accelerated vocational training operations carried out a few years ago by French technicians. But it must be recognized, as the experience in North Africa showed, that the number of workers who successfully complete their full training and literacy course remains minute compared to the labour force which remains illiterate.

The real problem is to inculcate functional literacy in the greatest possible number of illiterate workers in a given enterprise. That being so, it is impossible to give each illiterate worker a complete vocational training to make him a skilled or specialized worker. Functional literacy work is then restricted, with regard to vocational

training, to a technical introduction or pre-training. But its real significance goes beyond the scope of job training linked with literacy. It is an educational activity aimed at both the intellectual and civic training of the worker and his adaptation to the industrial environment and its technical requirements.

Extending the benefits of functional literacy to the largest possible number of illiterate workers leads to increased overall productivity of the enterprise itself, which we should not forget is one of the goals of national development. It is obvious that industrial functional literacy requires suitable instructors. The educator of the classic type could not undertake this work of technical initiation which provides logistic support for functional literacy. The ideal would be an instructor from the same socio-professional background who had undergone adequate pedagogical training. It is often necessary, however to make use of literacy instructors who have received only general training. In this case, it is recommended that a technical course of a practical nature be organized for them to supplement their training.

Functional literacy in a rural environment

15. Irrespective of the progress of industrialization in Asia, the development of rural areas, and particularly the increase of agricultural production, is still of vital importance to the majority of regional countries. It is virtually certain that in Asia, a predominantly rural region, economic growth and the rise in the countries' overall output will be determined in the coming decades primarily by the development of the agricultural sector.

Much is heard today about the "green revolution". According to Robert S. McNamara, President of the World Bank, the world is on the eve of an agricultural revolution as decisive for its history as the industrial revolution. That revolution is the outcome of genetics and the scientific work of research workers. The rice varieties IR5 and IR8, hybrids from Indonesia and Taiwan, the dwarf wheat from Japan and tritical,the Mexican wheat-rye hybrid,all give substantially higher yields.

It has been said that the fact that a farmer is illiterate does not prevent him from increasing, sometimes markedly, the output from his land. In his survey in the Philippines, Dr. S.C. Hsieh showed that illiteracy is not an obstacle to increased agricultural productivity.[15] Indeed, many of the rice growers who adopted the "miracle" variety IR8, and thereby tripled their crops, were illiterate. But we must avoid the error of confusing the modernization of the agricultural sector with the mere increase, often accidental or episodic, of this or that crop.

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15. Quoted by P.J. Hermon in *The effectiveness of social expenditures in Ceylon and West Malaysia*, Bangkok, United Nations, Asian Institute for Economic Development and Planning, 1969. p. 138

Certainly, the major concern of most Asian States at the present time is to increase food production. But a much more complex problem will very soon face the farmers of Asia: the need to acquire real skill in the management, both technical and commercial, of an agricultural enterprise. The green revolution, which is no more than the application of science and technology to agriculture, will raise new problems much more subtle and difficult than those raised by a simple increase in production. The real significance of the modernization of agriculture lies beyond the mutation of a subsistance economy into a market economy; what it means is that agriculture, which today is a way of life for millions of farmers, will become a profession calling for thorough training. The modernization of agriculture presupposes that the farmers possess a wide range of knowledge and skills, beginning with an educational level which the vast majority of rural people in Asia do not reach.[16]

The importance of a solid fundamental education for the modernization of agriculture has long gone unrecognized, inter alia by agricultural technical services. Today, on the other hand, it is beginning to be understood that education is an economic factor of primordial significance.

Surveys have shown that the lack of some fundamental knowledge can cause considerable losses to a country's economy. In the province of Guilan, in north-west Iran, the agricultural services suggest that rice growers, when sowing seed-nurseries, use 34 kgs. of paddy seed to the hectare. The Guilan rice farmers who can apply that formula correctly are few and far between. Because they cannot do arithmetic, the great majority of farmers use much more than the prescribed quantity of seed. The Rice Office has calculated that, for the province of Guilan alone, the ignorance of the rice growers costs 14,000 metric tons of paddy worth over 210 million rials in wasted seed every year.

The Ceylonese economist P.J. Hermon sees a causal relationship between the low level of literacy among the rural population of Ceylon and the failure of the co-operative movement; barely 25 per cent of the co-operatives function satisfactorily.

16. The modernization of the agricultural sector is a priority objective of a good many Asian countries, and development is the process and path by which it can be attained. There is no development in the agricultural sphere without innovation. Innovation can be brought about by the State, for example the establishment of an agricultural experimental station, an extension service, or agricultural credit offices. It may

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16. The economist Gunnar Myrdal, in a keynote address read to the Third International Congress of Food, Science and Technology in Washington, D.C. on 10 August 1970, pointed out that the green revolution may weaken land reform, and cause credit co-operation and agricultural extension services to benefit those who are already better off. Labour-saving machinery would make underemployed agricultural workers even less necessary and drive more of them to the cities where over-crowding is at the root of worsening living conditions.

also come from an individual at the actual level where development occurs, the village. There will be no development at the village level unless this individual innovates: unless in future he selects from high-yielding varieties, employs, with great care, safe chemical fertilizers or insecticides,[17] introduces advanced equipment, rationalizes his cultivating methods, joins a co-operative. To innovate, to do what he did not do before,this individual must learn.

Social scientists who have studied the development process have emphasized that it is a process of learning. This process can be enhanced and development thereby accelerated through development-oriented education. Functional literacy is an educational approach aimed at accelerating the development process. To show the value, and even the necessity, of functional literacy in an agricultural extension campaign, let us examine what three cultivation operations, which appear to be within the reach of any farmer, mean in terms of education: irrigation, the use of chemical fertilizers, and the use of insecticides. They mean that he must be able to reckon. He must be able to calculate the area of his rice-fields and his seed-nursery; he must be able to calculate the volume of water required for a given water level varying according to the stage of growth; he must be able to work out for his own field the quantity of fertilizers recommended from a particular general formula expressed in units of area; he must also be able to calculate the quantity of insecticide to mix with a given amount of water according to the variable-capacity of the sprayer. The farmer must therefore be able to calculate areas, volumes, contents and then to apply the rule-of-three and the calculation of percentages. All of these calculations required for the modernization of agriculture are taught in primary schools from grade V onward.

In Asia, however, the large majority of rural schools offer only three or four years of study; for the most part, grade V is found only in urban schools. Only a minute percentage of farmers have had a complete primary schooling; the majority of those who were privileged enough to go to their village school have attended for three or four years; the great mass of Asian farmers has remained either illiterate or semi-literate. Such low levels of education constitute a particularly serious bottle-neck because they block right from the beginning any real possibility of continued technical progress in the agricultural sector. It may be said that there is complete incompatibility between these low levels of education and agricultural development.

Every analysis of the modernization of the agricultural sector comes down to a two-fold conclusion: the need for vocational training and the need to raise the level of knowledge of the farmers. Functional literacy provides for these two essentials. It is not necessarily a matter of literacy. The same approach applies to population with partial schooling. It is more a question of measures aimed at equipping individuals intellectually and bringing them to a level where their knowledge

17. The massive use of some of these constitutes a threat to the environment, through the killing off of living creatures,including humans.

becomes usable from the technical point of view. Finally, this kind of functional literacy work can be defined as a pre-agricultural-extension operation, a precondition for the success of extension work proper.

Characteristics of functional literacy

17. Let us now examine the main characteristics of functional literacy, and particularly what distinguishes it from so-called traditional literacy. Functional literacy does not see the illiterate as a separate individual, isolated from his social group and environment, but as an individual in a group situation in relation to a particular environment and from the viewpoint of development. Its goal is to train that man as an agent of change in his environment. This training is vocational, industrial or agricultural as the case demands. For that reason, functional literacy is generally now called "work-oriented".

Literacy and vocational training are not parallel, nor are they separate of the other. The essential distinction between functional and traditional literacy is that the former constitutes training, or better, education of the personality, while the latter simply provides a means of access to written or printed communications. Traditional literacy is characterized by an extensive and diffuse approach; functional literacy adopts an intensive approach to enable illiterates to acquire vocational skills and knowledge which they can use in relation to their environment; it is also selective. The selective strategy which governs the planning of a functional literacy operation functions at three distinct levels: (1) the choice of industrial or agricultural development projects with high priority in the national plans; (2) the selection of problems or activities calling for functional literacy work; i.e. the selective strategy is aimed primarily at the bottlenecks in a development programme; (3) the screening of individuals able to take maximum advantage of the training.

In an industrial setting,this selection will be made among workers capable of absorbing vocational training in relation to a particular field of work or job. In a rural setting, innovators or potential innovators in agricultural techniques will be selected. Far from being uniform, functional literacy programmes are variable and flexible to take account of the diversity of immediate targets and specific situations. Programmes and methods are tailored to measure by interdisciplinary teams containing technicians and educators, sometimes with temporary assistance from an economist or sociologist. The teaching staff is preferably recruited from vocational training instructors, specialized workers, technicians, or trade-union or co-operative workers teaming up with professional educators. The calendar of activities is no longer the school year but, in industry, the anticipated schedule of training needs or production and, in rural areas, the agricultural cycle.

The implementation of a functional literacy operation by its very nature calls for co-ordination of the various public or private national bodies engaged in vocational training, both industrial and agricultural. It is financed from expenditure on economic investment. The budget is

no longer drawn up by the technique of "programme budgeting", but by that of "project budgeting". The unit cost is calculated in terms of the literacy operation as a unit, in other words, in terms of the cost of training all the workers in a given branch of activity: the training of tractor drivers, maintenance workers or farm managers. Lastly, the evaluation no longer considers the number of the newly literate and the per-capita cost, but the economic return from of the operation, whether this relates to the over-all productivity of an industrial enterprise or the adoption of innovations as part of the modernization of the agricultural sector.

The start-up of a functional literacy operation may run into sizable obstacles. Examples of these are the technocratic ideas and attitudes of the staff directing a development project, who tend to minimize the part played by human factors in the development process; the lack of understanding of the nature and methods of functional literacy; the negative attitudes of industrial employers or big landowners; the survival of feudal institutions such as latifundia or paternalistic capitalism. Other socio-economic factors may also hamper operations: the absence of real opportunities for promotion at work; migration of workers after their having finished a course; job uncertainty; an economic recession affecting the branches of activity concerned with the literacy project.

The experimental functional literacy programme

18. The concept of functional literacy is founded on a theory; that theory is based partly on the results of investigations into the phenomenon of illiteracy and comparative studies of traditional literacy methods, and partly on a number of working hypotheses. The chief of these hypotheses is that literacy leading to vocational and technical training may, provided that certain preconditions are met, become an important factor in development. It was to verify that working hypothesis that Unesco proposed carrying out an experimental world literacy programme. The programme was approved by the Unesco General Conference at its fourteenth session. Its contents take into account the recommendations of the World Congress of Ministers which met at Teheran in 1965. So far, Unesco has received requests from 52 Member States asking for missions of consultants to draw up functional literacy projects. Some 15 projects are now being prepared or implemented in various Member States. A small number of countries selected according to certain specific criteria receive technical assistance from Unesco and financial aid from the United Nations Development Programme (Special Fund); other Member States have requested only technical assistance in the form of expert services; a third group is taking part in the experimental programme using the respective national resources.

19. To what extent is Asia, the world's largest reservoir of illiterates, taking part in the experimental functional literacy programme? We shall mention here only those projects which are, so to speak, officially recognized as forming part of the experimental programme. Indeed, more than one Asian country has embarked on experiments with the new

approach on its own account. In 1968, for instance, Thailand organized in some districts of the northern province of Lampang, a literacy programme oriented toward development in rural areas.

Within the framework of the experimental programme, there is first the work-oriented literacy pilot project in Iran, which this Seminar is meeting to study.[18] A second project is now being carried out in Afghanistan. The Afghan functional literacy programme is an integral part of a programme of agricultural credit and rural co-operatives known under the initials PACCA. This programme receives technical assistance from FAO and Unesco and financial aid from the Swedish organization SIDA. Its setting is the Kah-i-Daman region, some 40 kms. north of Kabul, where the farmers are mostly vine-growers, and the Baghan region to the north of the Hindu Kush mountains 160 kms. from Kabul, where mixed farming predominates.

The implementation of the literacy project is supported by the Training Centre for Co-operation, Credit and Agricultural Extension located at Badam Bagh near Kabul and by the Kah-i-Daman and Baghan development centres. These two centres run various activities such as extension work and the training of farmers, farm managers and secretaries of co-operatives. The PACCA programme involves about 15,000 farming families, or a total of 60,000-70,000 people. The agricultural specialists consider that functional literacy is an essential precondition for the success of the programme, and particularly for the proper working of the co-operatives. In 1965, according to the estimates of the national departments, the illiteracy rate for the whole country among adults aged over 14 was 88 per cent for men and 99 per cent for women. Several bodies, including the Ministry of Education and the Department of Rural Development, have tried in the past to bring this rate down by traditional methods. The main obstacle they came across was the lack of motivation to become literate among those involved.

The functional literacy programme intends gradually to awaken in the farmers an awareness of the need for education by means of radio broadcasts followed by group discussions, both with farming techniques as their theme. It may be noted that the literacy work proper will begin with arithmetic, because of its importance in the daily life of farmers. The project provides for the integration of the three aspects of the PACCA programme: agricultural extension work, rural development and literacy. Extension work in the field will be followed by practical instruction in arithmetic; current themes are taken up by the radio and a discussion is held at the rural centre after listening to them. Posters on the same themes provide visual support. Finally, at a later stage, the co-operative provides the framework for educational activities at a more complex level.

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18. See the Seminar working paper *Summary of the Work-oriented literacy pilot project in Iran: problems and prospects.*

From the institutional viewpoint,there is a National Co-ordination Committee at the national level consisting of qualified representatives of the various ministerial bodies concerned, while at the operational level there is a team of national and international experts. The recently established Adult Education Office is responsible for working out the methodology and producing the teaching materials, including reading matter. The plan of operations shows that international assistance to the project will continue until 1972. The total foreign aid contributions amount to U.S. $296,000, with a national contribution of U.S. $124,575.

20. The third functional literacy project is in India. The Government of India has launched a vast agricultural development programme, called the high-yielding varieties programme, which is planned for implementation in successive stages until in 1970/71 it embraces a total area of 32 million acres and involves a population of 5 million farm families. This programme includes vocational training for farmers covering irrigation; farm management; the use of chemical fertilizers, pesticides and herbicides; and disease control.

Its execution is in the hands of the Ministry of Food,Agriculture, Community Development and Co-operation. It enjoys the active assistance of the Ministries of Information and Education. The Government of India is fully aware that this gigantic programme of agricultural innovation cannot succeed without the help of information and education.This concerted effort comprises a whole range of activities: functional literacy, group discussions, radio forums, demonstration sessions, short- and medium-length training courses. FAO, Unesco and UNDP are taking part through the UNDP Special Fund in the implementation of the many-sided programme.

Responsibility for the functional literacy component lies particularly with the Ministry of Education. The plans provide for territorial expansion by stages. The programme began in three districts in 1967/68 and about 100 districts will be covered by 1970/71. Sixteen literacy centres operate in each district, each organizing two six-month courses a year with 30 participants in each course. The syllabus is tuned to agricultural operations and techniques and to the cultural practices recommended under the high-yielding varieties programme. The reading material prepared in the local languages also takes account of the personality of the farmers, their motivations and interests. The basic vocabulary is built on the terminology required for farm innovations. Reading material for women stresses their role in agricultural production and house-keeping.

For the functional literacy courses, use is made of locally recruited teachers and technicians. Where it is not possible to recruit qualified teachers, the Ministries of Education of the various States participating in the programme organize short courses to introduce the teaching staff to functional literacy. As in all literacy projects carried out within an experimental programme, and because of that experimental character, the evaluation of activities and of the results

obtained is an essential element of the project. This evaluation is a continuing process.

In addition, during its last six months, the Government, FAO, UNDP and Unesco will make an evaluation of the project as a whole. On the basis of the conclusions reached, the Administration of UNDP will decide on the need for further assistance from the Special Fund. The Special Fund's contribution for the two and a half years for which its assistance is planned is to be $1,433,100. The Government's counterpart contribution will total $10,000,824.

21. The functional literacy project in Laos is still at the preliminary stage, but the national authorities are keen to move on to the operational stage as soon as possible. The project's aim is the agricultural and rural vocational training of farmers in the Vientiane plain, in liaison with the development plans of that region, in the broader framework of the project for the development of the lower Mekong basin. Those plans provide for the irrigation of an area of 5,000 hectares by 1972/75, of 27,000 by 1975/1985, and more than 110,000 hectares by the end of the century. The functional literacy project should enable farmers to take better advantage of the programmes aimed at increasing their labour productivity and raising the economic level of living being drawn up for them by the various development agents. Because of the shortage of adequately qualified personnel and the limitations of the national budget, the project does not envisage any new allocation of funds, any new jobs on the staff of the administrative departments, or any new budget heading. It plans to utilize existing human and material resources by increasing the productivity of the staff and equipment available. For literacy workers it will make use of the technical staff already stationed in the villages of the Vientiane plain: the agricultural extension workers, the rural development workers, and the basic education and health workers. Furthermore, wide use will be made of the priests, who will receive special training from the Ministry of Religion focused on the dissemination of the idea of economic development.

In other words, the functional literacy project is not conceived as a separate effort, but as a component part of existing development programmes. The team which drew up the project, made up of Laotian educators and a Unesco consultant, had an opportunity to set tests -a literacy scale and a pictorial test - enabling them to determine, on the one hand, the level of literacy of the population and, on the other hand, a correlation between success on the literacy scale and success in the pictorial test. Functional literacy will be taught at three levels, according to the standard of literacy of the individuals as determined by the tests. The teaching methods will derive from a system based on the psychological knowledge of the person to be taught. In addition, the tests revealed extremely serious gaps, even among literate persons able to read and write fluently, in reckoning, geometry and arithmetic (reckoning of percentages, proportional shares, and the rule-of-three; the metric system). A large part of the literacy programme will therefore be devoted to the teaching of arithmetic to take farmers to a level where they can properly apply the technical instructions given to them

by the agricultural extension workers. The method of learning reading will preferably be the global method, which is better suited to adult psychology and can be adapted for learning technical words. The project will be directed at the national level by a National Functional Literacy Committee under the chairmanship of the Minister of National Education, who is also Vice-Chairman of the Council of Ministers. This Committee will also contain representatives of the Ministries and commissariats directly involved in the execution of the project. For the first two years of the project, the Government has requested the technical help of a Unesco expert.

22. In conclusion, it may be noted that the possibility of starting up functional literacy programmes in the four Mekong riparian countries - Thailand, Cambodia, the Republic of Viet-Nam and of course Laos - is now being studied. The setting for these projects would be the project for the development of the lower Mekong basin. At its session at Singapore in April 1969, the Mekong Committee requested the Executive Agent of the Mekong Secretariat to ask for a Unesco survey and planning mission which should also include FAO, ILO and WHO experts. The mission would work in collaboration with the Mekong Secretariat, ECAFE, the national Mekong committees and the appropriate national bodies in the riparian countries. The mission would study in particular the requirements with respect to functional literacy leading to agricultural training arising from the introduction of vast irrigation programmes. For the Mekong Committee, this investment in human resources for development is as vital as capital investment.

ANNEX I

AGENDA AND ITINERARY

Monday, 27 October

Arrival of the participants at Teheran

Registration

Tuesday, 28 October

07:00	Departure by air to Isfahan
08:00	Arrival at Isfahan
15:00	Official opening session of the Study Visit and Seminar

Wednesday, 29 October

08:00	Briefing on the Study Visit and Seminar
09:00 - 11:00	General briefing on the Work-oriented Adult Literacy Pilot Project (WOALPP) in Iran by Mr. Pierre Henquet, Chief Technical Advisor and Mr. F. Borzui, Assistant National Director of WOALPP.
11:00 - 12:00	Briefing on the Isfahan sub-project by Mrs. Nuri, Regional Director
14:00 - 15:00	Briefing on the Industrial and Vocational Section of Isfahan by Mr. C. Leven, ILO expert and Mr. H. Ghaeli, Chief of the Section.
15:00 - 16:00	Briefing on the functional literacy programme within the steel mill by Mr. C. Bonanni, Unesco expert and Coordinator, Isfahan sub-project.
17:00 - 20:00	Visit to the steel mill workshops, and literacy activities in the Reeze area guided by Dr. A. Albarzi, Administrator of the steel mill.

Thursday, 30 October

08:00 - 10:00	Discussion on the activities in the Reeze area.
10:00 - 13:00	Visit to the Behfar and Taj textile factories.

Friday, 31 October (Holiday)

Guided visit of Isfahan

ANNEX I

Saturday, 1 November

08:00 - 10:00	Briefing on the Women's Section (Women's classes and handicrafts cooperative) by Mrs. Nuri.
10:00 - 11:00	Presentation of the International Institute for Adult Literacy Methods by Dr. J.D.N. Versluys Director.
11:00 - 13:00	Visit to Women's classes at Isfahan.
16:00 - 17:00	Briefing on problems of health, hygiene, nutrition in relation with functional literacy, by Dr. Pascual, WHO consultant.

Sunday, 2 November

08:30 - 10:00	Briefing on the Education Corps by Dr. Hossein Banai, Director General of the Education Corps Department.
10:00 - 13:30	Visit to Education Corps schools in villages.
15:00 - 17:00	Briefing on the Agricultural Section activities by Mr. Soraya, Agronomist, Head of the Section and Dr. S. Eriksson, Unesco expert.

Monday, 3 November

08:00 - 09:00	Discussion on the Education Corps.
09:00 - 12:00	Discussion on Methodology of functional literacy introduced by Mr. C. Bonanni Unesco expert.
14:00 - 15:00	Visit to the Women's handicraft cooperative.
16:00 - 17:00	Production of Reading Materials presented by Mr. Rahimi, Head of the Production Section.
17:00 - 19:00	Briefing on the Audio Visual Section by Mr. R. Paccard, Unesco expert and Mr. Momeni, Iranian A.V. expert.

Tuesday, 4 November

08:00 - 12:00	Briefing on evaluation, by Dr. Katibi, former Director of Isfahan sub-project, Mr. Behkish, Iranian expert and Dr. Kaufmann, Unesco expert.
16:00 - 20:00	Visit of literacy activities in the Pir Bakran area.

ANNEX I

Wednesday, 5 November

08:00	Departure by car to Dezful
20:00	Arrival at Dezful

Thursday, 6 November

08:00 - 10:00	Briefing on the irrigation project of Khuzestan by Ing. Azhdari, Chief of Irrigation Pilot Project and Ing. Zandieh, Assistant Chief.
10:00 - 13:00	Briefing on the Dezful sub-project by the Iranian and Unesco experts.
16:00 - 20:00	Visit to literacy activities in the irrigated area of Dezful.

Friday, 7 November

	Visit to the Experimental Farm, the Mohammad Reza Shah Pahlavi Dam, the historical sites of Sush and Haft Tepeh.

Saturday, 8 November

08:00 - 10:00	Presentation and discussion of the individual reports of the participants.
10:00 - 12:00	General discussion on the Study Visit.
16:00 - 17:30	Recommendations.
19:00	Departure by train to Teheran.

Sunday, 9 November

08:00	Arrival at Teheran.
13:00	Reception by H. Ex. the Minister of Education.

ANNEX II

LIST OF PARTICIPANTS

AFGHANISTAN
Mr. Fateh Muntazer
Director, Adult Education Department
Ministry of Education, Kabul

BURMA
U Aye Soe
Deputy Secretary
Central Literacy Supervisory and Coordinating Committee
Burma Educational Research Bureau, Rangoon

CAMBODIA
Mr. Pak Samay Mensana
Direction des Services Pédagogiques
Ministère de l'Education Nationale, Phnom-Penh

INDONESIA
Mr. Soenarjono Danoewidjojo
Head, Directorate of Community Education
Salemba Raja 18, Djakarta

LAOS
M. Bounthong
Sous-Directeur de l'Enseignement Primaire
et de l'Education des Adultes
Ministère de l'Education nationale, des Beaux-Arts
et des Sports-Jeunesse, Vientiane

MALAYSIA
Mr. Ahmad Bin Abdul Rahim
Deputy Secretary
(Community Development and Adult Education)
Ministry of National and Rural Development
Kuala Lumpur

NEPAL
Mr. Thakur Man Sakya
Acting Director General
Department of Education, Patan, Bacumbahal

PAKISTAN
Mr. A.H.M. Karim
Deputy Director of Public Instruction and Adult
Education, Dacca, East Pakistan

PHILIPPINES
Mr. Artemio Visconde
Chief, Adult and Community Education Division
Bureau of Public Schools
Department of Education, Manila

ANNEX II

THAILAND — Mr. Kowit Vorapipatana
Chief of the Adult Education Division
Department of Elementary and Adult Education
Ministry of Education, Bangkok

REPUBLIC OF VIET-NAM — Mr. Tràn Văn Thú
Chef, Bureau d'alphabétisation,
Direction de l'Enseignement Normal et de l'Education des Adultes, Saigon

IRANIAN OFFICIALS OF THE LITERACY PILOT PROJECT

H.E. Dr. A. Birjandi, Deputy Minister
National Director of the Pilot Project
Ministry of Education, Teheran

Mr. Faramarz Borzui
Deputy National Director of the Pilot Project

Mrs. M. Nuri
Regional Director of the Isfahan Sub-Project

Mr. H. Naghibi
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Mr. F. Habibi
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Mr. F. Momeni
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Mr. M. Rahimi
Teaching Material Specialist, Isfahan

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Mr. K. Hodjati
Audio Visual Specialist, Dezful

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Mrs. A. Jerayeri
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Mr. A. Pazouki
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Mr. N.D. Kaufmann
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Mr. R. Paccard
Audio Visual Production Specialist, Isfahan

Miss M.E. Roberts
Women's Education Specialist, Isfahan

Mr. Ch. Wagner
Literacy Specialist, Dezful

Mrs. R. Wiesinger
Women's Education Specialist, Dezful

ANNEX II

REPRESENTATIVES OF SPECIALIZED AGENCIES OF THE UNITED NATIONS

United Nations Educational, Scientific and Cultural Organization (Unesco)

Mr. Marcel de Clerck
Adviser on Adult Education
Unesco Regional Office for Education in Asia, Bangkok

Dr. J.D.N. Versluys
Director, International Institute for Adult Literacy Methods,
Teheran

International Labour Organization (ILO)

Mr. C. Leven
Industrial Vocational Education Specialist, Isfahan

World Health Organization (WHO)

Dr. Pascual
WHO Specialist in Health Education, Teheran

Interpreters

Mr. A. Andreyev
Mrs. J. Kebaili
Mr. J. Rosenn

Organizing Committee

Mr. M.A. Naghibzadeh, Chairman
Mr. H. Mirzeyedi
Mr. Jalal Golestaneh
Dr. A. Ghassemi
Mr. Pedro Ronduen